



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

Vigilance required for Virginia's wilderness forests

The 180,000 acres of National Forest in Virginia are now combined into the single George Washington/Jefferson National Forest, managed by the United States Forest Service, with headquarters in Roanoke and about a dozen ranger districts. The federally-owned lands of our eastern national forests were created a century ago to meet many public needs, including timber production, water quality preservation, ecosystem conservation, recreation such as hunting, fishing, camping, hiking, horseback-riding and, of course, native plant observation, and maintenance of biological diversity.

Today, they are still managed for these multiple uses, and roughly every ten years, the plans are revised. All

parts of the forest are re-evaluated and allotted an appropriate (one hopes) management prescription. Public involvement in the plan revision process is vital, although it can be tedious and time-consuming. But pressures from groups involved with some of the forest uses such as roading, logging and mining may be strong enough to conflict with and overwhelm forest protection prescriptions such as remote, back country wilderness.

Constant vigilance is required. Federal Wilderness protection is achieved by an Act of Congress (a wilderness bill) and therefore affords the strongest possible protection for our wildest lands. Forest supervisory management can reverse almost all other management options (no mat-

ter how tight they seem). This must be clearly understood, because the most common question asked is: "Why do we need wilderness? It's fine the way it is." The response to this question is, "It's fine for now. That could change so easily and, dismayingly, often has."

Wilderness advocates are constantly working to put as large a core as possible of protected land into the National Wilderness Preservation System; a process created with the passage of the Wilderness Act of 1964. Since 1964, the Virginia Wilderness Committee, in collaboration with other conservation groups, has been working to do just this.

The year 1975 saw the designation (See *Wilderness*, page 10)



**Annual
Legislative
Issue:**

"The most favourable laws can do very little towards the happiness of people when the disposition of the ruling power is adverse to them." -Edmund Burke

From the President.....

It is the first week of December as I am writing this letter—a very busy time this is for most people as they shop, work and party. But, as a slant to the stop and smell the roses adage, stop and take a walk in the woods. To do so refreshes the senses and the mind not to mention the extra bonuses of getting fresh air and exercise. Now that the deciduous trees have lost their leaves, the evergreen plants really get to shine. Somehow, walking down the path through the woodland and picking out the evergreens puts one in a holiday spirit. Look down on the ground. What might you see? Spotted wintergreen (*Chimaphila maculata*) will be peeping through the dead leaves, or you might get lucky and find a large colony of running cedar (*Lycopodium digitatum*) or ground-pine (*Lycopodium obscurum*) which really looks like a midget pine. Sometimes one can see partridge-berry (*Mitchella repens*) with red berries creeping along the ground. Then there are the evergreen ferns: Christmas-fern (*Polystichum acrostichoides*) and the spleenworts (*Asplenium* spp.).

Looking up, notice the green stems of the hearts-abusting (*Euonymus americanus*). It still might have its peculiar strawberry-looking four-parted pod with a red berry hanging from each corner. At this time of the year it is easier to find the mountain laurel (*Kalmia latifolia*). For those of you who live in the mountain region, it is also easier to find the rhododendrons. Then raise your eyes even higher. There you will see the evergreen trees, pine species, holly species and red cedar (*Juniperus virginiana*). This year the American holly (*Ilex opaca*) is really showing its berries as it lights up the landscape. Skirting around wetlands may give a glimpse of winterberry (*Ilex verticillata*), its leafless branches ablaze with bright red berries. For those of you living in the coastal region, you may come across an evergreen small-leaved shrub with shiny black berries—inkberry (*Ilex glabra*). In its compact form, it makes a fine substitute for boxwood. Please don't miss the bayberry (*Myrica cerifera*) with its waxy blue nuts (berries).

At this time of the year you can also spot the evergreen vines. In the damp areas of the woods, you may see a vine with leaves in pairs. This is the cross-vine (*Bignonia capreolata*) whose large red and yellow trumpet-shaped flowers bloom in the trees during the first week of May. Or if you live in the southern part of the state, you could come across the Carolina jasmine (*Gelsemium sempervirens*), a vine with dark evergreen leaves usually climbing up shrubs and trees. It bears yellow, sweet scented (to some!) trumpet-shaped flowers in spring and intermittently throughout summer. Frankly to me it smells like cheap, hard candy! So, when you finally wander home, you begin to feel the spirit!

From your president,
Marie F. Minor

June Annual Meeting promises spectacular native plant blooms

The Y2K Virginia Native Plant Society's Annual Meeting will be held in the beautiful Blue Ridge Mountains, near Roanoke, and hosted by the Blue Ridge Wildflower Society. The dates are June 2 - 4, 2000. Field trips will include the scenic Blue Ridge Parkway which promises to have fabulous displays of flame azalea, rhododendron, Indian paint brush and the more subtle beauty of pogonias. With a backdrop of green meadows and rolling hills, this will be an exciting way to enjoy the transition from spring to summer. Watch the March issue of the *Bulletin* for an entire package of exciting information about the meeting.

Ted Scott to be honored with tree planting at Blandy Farm

The Native Plant Trail at the Virginia State Arboretum (Blandy Farm) has several native trees that have been planted and dedicated to Virginia Native Plant Society members who have contributed significantly to the Society's goals.

Present honorees are Mary Painter (black gum), John and Phoebe White (white ash), Nicky Staunton (swamp oak) and the late Loren Staunton (swamp oak). The cost of a memorial plaque and a part of the purchase and maintenance of the trees have been supported by donations from VNPS members and the chapters.

A native white oak (*Quercus alba*) has been acquired and will be dedicated to Ted Scott at a ceremony to be scheduled sometime in the spring. Members who would like to contribute to the purchase and maintenance fund and have their names inscribed in an appreciation certificate may send contributions to the Virginia Native Plant Society at the Blandy address. Please note Ted Scott White Oak Fund on your check or accompanying note.

The time and date of the dedication ceremony will be published either in the March *Bulletin* or by a special notice to the chapter presidents.

Conservation issues

Wetland ditching continues unrestrained in Virginia

After 18 months, no action has been taken by Governor Jim Gilmore or the Virginia legislators to preserve Virginia's wetlands which have been made vulnerable by the D.C. Court of Appeals decision that the Corps of Engineers has no authority to control drainage of Virginia's wetlands, only filling in wetlands. A "No net loss of Virginia wetlands" pledge has not happened as promised.

With this decision in June of 1998, drainage in Virginia began, primarily in Southeast Virginia. As of September 1999, 9,000 acres of your Virginia wetlands have been drained. (VNPS reported this situation to members in the August 1999 *Bulletin*, page 3. There is a list of related websites.) Scientists at the Virginia Institute of Marine Science (part of the College of William and Mary) estimate that 588,000 wetland acres statewide are potentially at

risk unless Virginia closes this loophole. Only North Carolina has experienced more wetland losses, approximately 9,200 acres drained, and Virginia is rapidly overtaking North Carolina. North Carolina responded to the court's decision by determining that wetland ditching and draining still falls under its authority to manage water quality within the state. Both Maryland and Pennsylvania do not have this problem as their non-tidal wetland laws regulate such activities. Developers are not the only ones taking advantage of the Tulloch decision. Some Virginia municipalities are rushing to take advantage of the ruling. Specialized construction equipment and technology are used to construct a series of ditches in wetlands and avoid placing the dredged material directly back onto the site. When the wetland is drained and the hydrology of the site destroyed, development

on the site can occur on the damaged wetland without a permit and without compensating for the wetland destruction. (The Chesapeake Bay Foundation website can give you more information: www.cbf.org/library/fact_sheets/fs_tulloch.htm) A bipartisan group of six Virginia legislators plans to introduce a bill in January to regulate the draining of non-tidal wetlands. Backers of the legislation are Del. James Dillard II, R-Fairfax; Del. H. Morgan Griffith, R-Salem; Sen. Mary Margaret Whipple, D-Arlington; Del. Viola O. Baskerville, D-Richmond, and Sen. John H. Chichester, R-Stafford. (*Manassas Journal Messenger*)

It is possible that all planned drainage could occur in Virginia's wetlands before the legislators can pass necessary legislation. Immediate action by Governor Gilmore is needed to protect the wetlands and to stop this new cause of loss of wetlands that control floodwater, filter pollutants, and protect the plants and animals living there. [Write: Governor Gilmore, State Capitol, Richmond, VA23219]

Nicky Staunton, Conservation Chair

VNPS supports long-term funding for land conservation in the state

The Conservation Land Coalition of Virginia last July called on the Commonwealth of Virginia to establish a dedicated, long-term funding source for land conservation. In its report, "The Case for a Dedicated Funding Source for Land Conservation in Virginia," foreboding statistics on the loss of farmlands, forests, and historic sites in the last several decades is cited.

Virginia ranks in the top ten of all states in globally rare plants. The Northern Piedmont of Virginia is ranked as the second most threatened farmland in the nation in a study conducted by the American Farmland Trust. The goal would be to generate a minimum of \$40 million annually through matching funding.

The U.S. Congress is studying increasing the Land and Water Conservation Fund. Under that program, Virginia could receive \$27 million annually. These funds are required to be

used for land acquisition and other recreation-based expenditures. The federal fund requires a state matching fund.

The Virginia legislature will convene in January 2000 and will be requested to create a dedicated funding source to carry out the mission of the Virginia Land Conservation Foundation which is empowered to provide matching funds to Virginia organizations for purchase of conservation easements and other conservation needs.

In September, the VNPS Board of Directors voted to send a resolution to the governor supporting a dedicated funds source for land conservation in Virginia.

For more information, contact Michael Lipford, Conservation Land Coalition (CLC) at 804-295-6100 or mlipford@tnc.org. (A resolution copy can be obtained upon request to VNPS.)

Nicky Staunton, Conservation Chair

Stafford County site is special

A crown jewel, the Crow's Nest property in eastern Stafford County, has caught the eye of regional, state and national conservation organizations. Over 3,800 acres of mature mesic forest on a peninsula five miles in length and two miles in width, surrounded by a tidal freshwater estuary, makes Crow's Nest special.

The property is unique because in addition to its size and pristine state, it contains steep slopes and calcareous soils that are unusual for the coastal plain. The Virginia Department of Conservation and Recreation, Division of Natural Heritage has been studying some of the unique plant communities and ecological resources found at Crow's Nest, to gain a better understanding of this ecosystem.

The Trust For Public Land and the Chesapeake Bay Foundation have been (*See Crow's Nest, page 6*)

Virginia's native vines

Virginia creeper is an all-around winner

But for one vote, Virginians might have Virginia creeper on their license plates instead of flowering dogwood. That's because in 1918, when the Virginia General Assembly voted to adopt a state floral emblem, Virginia creeper lost to dogwood by only one vote. Dogwood won, so the story goes, because a legislator successfully argued that Virginia creeper was a climber and Virginians weren't climbers (meaning social climbers, I assume).

Whether or not the legislator was right about Virginians, he was right about Virginia creeper. It does love to climb, and it's as willing to climb up garden shrubs and invade perennial borders as it is to climb trellises and trees. In the right spot, however, Virginia creeper can be as ornamental as the priciest cultivated vine, and it's more valuable to birds than many a nursery-grown plant.

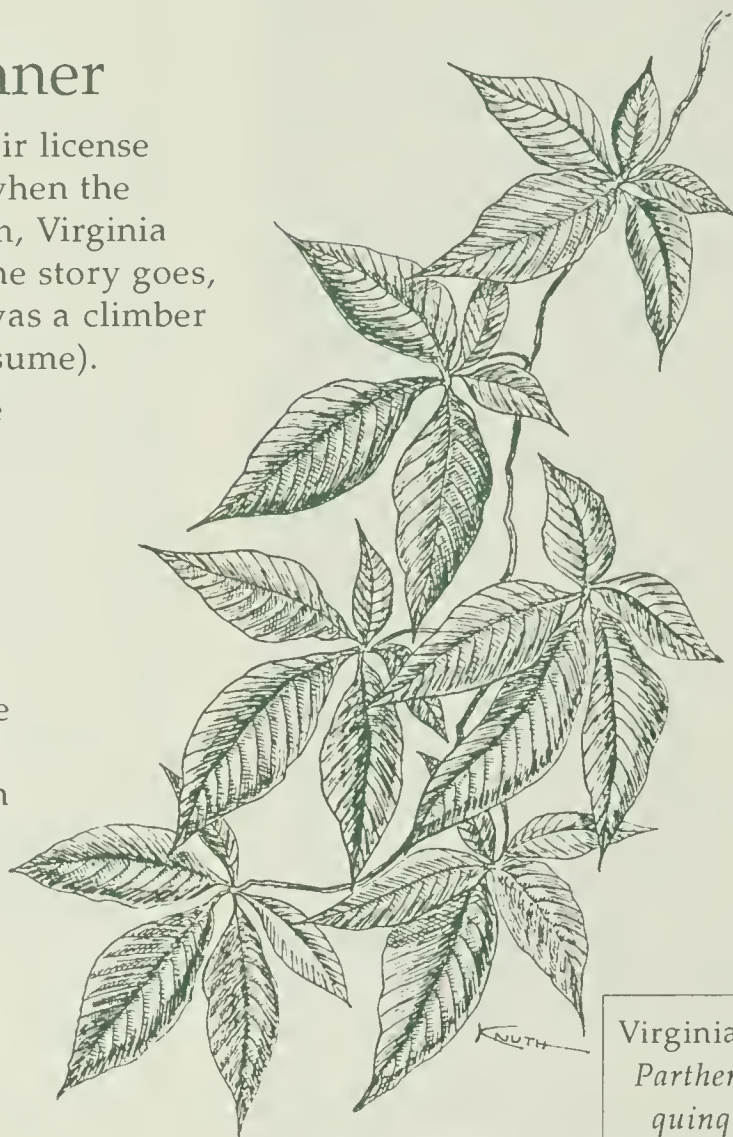
One reason Virginia creeper (also called woodbine and false grape) gets less respect in its namesake state than it does elsewhere is that here it's common. It can be found growing wild in every Virginia county, and you're more likely to see it growing up a fence post or on barn wall than on an arbor. In Europe, on the other hand, Virginia creeper is cultivated as an ornamental. The famed British gardener Gertrude Jekyll, for example, used it in many of her landscapes. For the 16th-century Manor House at Upton Grey, she designed a walkway flanked by wooden pillars on which grew roses, Dutchman's pipe, jasmine, and "delicate-fingered Virginia creeper." In Venice, Virginia creeper is grown both on crumbling walls and on carefully tended trellises.

Another reason Virginia creeper is under-appreciated in its native state is that lots of people mistake it for poison ivy. Both have gorgeous red fall foliage, but Virginia creeper usually has five leaflets as opposed to poison ivy's three. "Three leaves spell foe, five leaves spell friend" goes the saying that's supposed to keep us from getting the two confused, but although Virginia creeper usually has five 2- to 6-inch leaflets arranged like fingers around the palm of a hand, sometimes it is missing fingers and gets mistaken for three-leaved poison ivy. Even novice naturalists can learn to tell the two vines apart, however, and if you've ever wished you could grow a vine as spectacular as poison ivy but without its poison properties, Virginia creeper is the vine for you. At least that's true if you have the right spot for it or are willing to do what it takes to keep it under control. I think the best place for Virginia creeper is growing up fence posts beside highways where it waves its red leaves like flags in the fall and mowing and/or grazing keep it in bounds.

I also love to see Virginia creeper growing up into evergreen trees because its red foliage looks particularly dramatic there. Don't assume that getting it to grow vertically is going to keep it from growing horizontally, however. I once tried to grow it up the side of a deciduous tree, and it went up just fine (you can guide the young vine to its support with a string), but it also spread aggressively on the ground, sneaking under the azaleas and making a fine mess of an otherwise tidy bed. I ended up pulling the whole vine out, but I still give Virginia creeper its head occasionally in places where I know I can keep an eye on it. I have a wonderful little trail of it headed up the side of the shed right now, and if I start getting nervous about where else it's headed, I'll just pull it down.

Pulling Virginia creeper down is not like pulling honeysuckle down, however. As one 16th-century writer said about a vine that clings the way Virginia creeper does: it "cleaveth wonderful hard." Although it sometimes climbs by coiling around its support, Virginia creeper usually climbs by sending out tendrils tipped with adhesive discs that cement themselves to the growing surface. Darwin reportedly tested their strength and found that five of these discs grouped together on a single tendril could support a weight of 10 pounds. Warns one creeper critic: "It has to

(See *Cultivating creeper*, page 8)



Virginia creeper
*Parthenocissus
quinquefolia*
Illustration by
Spike Knuth

Wildlife gardeners should try native vines

If you like to grow vines, there are some native ones that provide food as well as shelter and nesting sites for wildlife. My favorite is trumpet-creeper (*Campsis radicans*), but two other useful vining plants are Virginia creeper (*Parthenocissus quinquefolia*) and common greenbriar (*Smilax rotundifolia*).

All three of these plants are considered by many folks to be weeds, but none of these vines are difficult to control in a yard that is cared for. The alert gardener who does not want more than one trumpet creeper, for example, simply pulls out the few seedlings that come up each year. The vine only takes over during the course of several years of unchecked reproduction.

Before you laugh too much about the idea of actually encouraging common greenbriar in your yard, I should admit that this is a plant that you want to grow in a corner or other area of the yard where no one might brush against it. It has barbs that will hurt and scratch, but therein lies part of its usefulness to wildlife. A fox (or cat or dog) chasing a rabbit will undoubtedly be brought to a halt if the cuddly creature runs under a thicket of greenbriar. Birds often nest in these thickets, and the bluish-black berries that greenbriar produces are consumed by songbirds and mammals during the winter.

Common greenbriar is difficult to transplant success-

fully so you might have to wait for some to appear in your yard in the right place. I encouraged some along my driveway and the thicket is quite attractive. Greenbriar leaves are a leathery, but glossy green and the plant can withstand a fair bit of shade yet produce fruit.

Virginia creeper is an especially wonderful plant for the home landscape because of its beautiful red, fall foliage. The foliage is palmately compound and makes this vine extremely attractive growing up a tree trunk. The flowers are inconspicuous, but they produce a bluish-black berry on bright red stems that are visible in early fall. Small mammals and many species of songbirds eat the fruit.

Virginia creeper often shows up in yards on its own (well, actually with the help of the animals that eat its berries), but these plants can also be bought from nursery catalogs. They transplant okay, but are often slow to take off. When the vine does start to grow well, it can reach over 35 feet in length.

Trumpet creeper is the best all-round native vine for the yard. It produces pretty pinnately compound leaves and tubular orange-red flowers that look great right up until frost. Besides increasing the beauty of your yard, trumpet creeper is a fantastic wildlife plant. Ruby-throated hummingbirds hang around these flowers all summer long for nectar, and tufted titmice, American goldfinches and dark-eyed juncos eat trumpet creeper seeds during the winter. I have even seen titmice storing shelled sunflower seeds from my feeders in the stems of trumpet creeper!

Trumpet creeper really needs full sun (6 to 8 hours of sunlight a day) to produce lots of blooms. It will survive in partial sun but produce fewer flowers. This is a plant that needs lots of room as it can grow more than 35 feet long. I trained mine to climb the south end of my deck and it spills over onto the deck itself.

You will need to tie the vine to the support posts, trellis or fence to get it going in the right direction. The stem will put out rootlets (See *Vines for wildlife*, page 8)



Common
greenbriar
*Smilax
rotundifolia*
Illustration by
Spike Knuth



Poison ivy
*Toxicodendron
radicans*
Illustration by
Spike Knuth

Program aimed at reviving Virginia's native grasslands

No one driving around the northern part of the Shenandoah Valley would ever conclude that grasslands are a rare and disappearing habitat here in Virginia. Or would they? While it is true that a large portion of Clarke County can be described as pasture or meadow, the grasses dominating these habitats are species brought here from Europe or Asia. The fact of the matter is that probably few Virginians have ever seen the native grasses of their home state. Although grasses have been a significant part of the Virginia landscape for millennia, native grasses and the plant communities they once characterized have been disappearing from the state ever since the earliest white settlers

Family collections framed by the Blue Ridge to the east and the Massanutten Mountain to the southwest. The drama of the view is provided by 40 acres of open field that separates the northern and southern halves of the arboretum. This field, like most in Virginia, is dominated by exotic species such as fescue (*Festuca* spp.), honeysuckle (*Lonicera japonica*) and yellow bedstraw (*Galium verum*), but over the course of the next year we plan to reestablish native vegetation in the field, a community dominated by grasses native to Virginia.

Virginia native grasses include big and little bluestem (*Andropogon gerardi* and *Schizachyrium scoparium*), broomsedge (*A. virginicus*) and Indian-grass (*Sorghastrum nutans*). These

(e.g., *Chamaecrista fasciculata* and *Baptisia australis*), mints (*Monarda fistulosa*), scrophs (*Penstemon* spp. and *Mimulus ringens*), and other plants from mid-Atlantic sources will be integral components to our grassland as well.

The reconditioning of the field is being aided, in part, by a grant from the USDA Wildlife Habitat Incentives Program (WHIP). WHIP provides cost-sharing for up to 75 percent for habitat improvement projects, and a high priority is given to grassland projects of this kind. Any land owner wishing to make such improvements is eligible for the program, and interested readers are urged to contact Mike Liskey (540-868-1130, ext. 3) of the USDA Natural Resources Conservation Service for more information.

There will be many beneficiaries of the grassland project, not the least of which will be declining bird species like Bobwhite and several species of sparrows that have suffered with the loss of native grassland habitat. Researchers at the University of Virginia and Virginia Tech have already expressed their interest in the project, and the area will be a tremendous teaching tool for summer courses and school programs. The reconditioned field also will be an ideal way to extend the Virginia Native Plant Trail from the existing woodland section to the proposed wetland section. Personally, I'm looking forward to standing on the hill among the *Catalpas* on a breezy summer afternoon and looking across 40 acres of tall grasses and colorful wildflowers.

David Carr, Curator and Research Assistant
Professor in Environmental Science at Blandy

Blandy Connections

arrived. Fortunately for those of us who appreciate the Commonwealth's natural heritage, there is a movement afoot to reestablish native grasses.

The Virginia Natural Heritage Program includes four different types of natural communities dominated by native grasses in its list of rare communities and ecosystems in the state. The idea of "natural" grasslands in Virginia may seem surprising to some. Grasslands in most of the eastern United States have a natural tendency to disappear because trees typically invade, causing a successional change from grassy meadows to forests. However, some Virginia habitats are disturbed frequently enough that tree establishment is inhibited and the grasslands persist. These disturbances can be natural, such as seasonal floods along rivers, and ecologists now have evidence that parts of Virginia have had long histories of extensive anthropomorphic disturbances – fires set by Native Americans.

One of my favorite views here at Blandy is the scene looking south from near the *Catalpa* collection. From there I can see the Magnolia, Rose and Pea

native grasses are collectively referred to as "warm-season" grasses because most of their growth is concentrated during the summer months as opposed to "cool season" species like fescue which tend to grow in the spring. This ecological difference provides a means of managing the field (through periodic burning and mowing) that will encourage the desirable natives and discourage the exotic fescues. Natural Virginia grasslands host a diversity of beautiful wildflowers, and over 40 species including milkweeds (*Asclepias* spp.), asters (e.g., *Aster* spp., *Helenium* spp., *Rudbeckia* spp.), legumes

•Crow's Nest

(Continued from page 3)

negotiating with the owner-developer of Crow's Nest to purchase the property and hopefully sell it to the U.S. Fish and Wildlife Service. Additionally, Congressman Herbert Bateman (R-Va.) has taken an interest in the preservation of the property, and is studying options for funding to acquire and purchase Crow's Nest.

Individuals are encouraged to contact Congressman Bateman, and Senators Robb and Warner and let them

know you care about the acquisition and protection of Crow's Nest. Contact points are: Bateman, fax: 202-225-4382, phone 202-225-4261; Robb, fax: 202-224-8689, phone: 202-224-4024, e-mail: senator@robb.senate.gov; Warner, fax: 202-224-6295, phone: 202-224-2023, e-mail: senator@warner.senate.gov. Interested VNPS members should keep an eye out with your chapter for additional information and times/dates for upcoming field trips to the site this spring and summer.

Jessica Strother Director-At-Large

Presidential EO on invasive species spurs action

Anyone travelling Virginia's highways will see fragmented tree buffers overwhelmed with vines and overshadowed by trees of heaven. Virginia's natural areas also suffer an onslaught of more than escaped non-indigenous plants, there are also imported insects (gypsy moths and Asian long-horned beetles) and imported pathogens. Across America, *Lythrum salicaria* has greedily usurped wetlands, threatening wetland birds' native plant food sources.

VNPS has long-been involved in the struggle against invasive exotics. An Illinois conference in 1991 highlighted the problem and in 1992, VNPS Conservation Chair Ted Scott contacted Virginia Department of Conservation (DCR) and in partnership, Caren Caljown of Division of Natural Heritage and Ted prepared and distributed a list of invasive alien plants in Virginia. (Revised list available with sase.) Next, fact sheets were prepared and distributed for some of the most threatening invasive alien plants. There are now 30 available, including new ones: Aneilma, Canada thistle, Eurasian water-milfoil, Parrot's feather, Weeping love grass and Winged burning bush. (Request with sase 55-cent stamp for all six or 33 cents for fewer sheets.) Next, VNPS, along with 10 other groups, prepared a publication listing recommended native plants

to use instead of invasive species. Participants included VNPS and 10 other groups including state agencies, nurserymen and landscape architects. (Available from www.state.va.us/~dcr/dnh/bookeduc.htm)

As national awareness increased, ten governmental agencies and representatives formed the Federal Native Plant Conservation Initiative in 1994. VNPS was one of the early 150 organizations to have formal cooperator status with the committee. This group has been renamed: Plant Conservation Alliance (PCA). (www.nps.gov/plants) In April 1998, Secretary of the Interior Bruce Babbitt spoke at the "Science in Wildland Weed Management" Symposium in Denver, Colorado. He noted that each year noxious weeds exact an ever-heavier toll. Damage done by purple loosestrife, a seemingly harmless flower found in 36 states, costs \$45 million to manage. To bring this into a statewide perspective, Florida spends \$11 million each year to manage water hyacinth. Conservative estimates count 2,000 alien plant species, 350 of which experts say are serious and dangerous invaders. (full text: www.nps.gov/plants/alien/press/bbstat.htm)

On February 3, 1999, President Clinton issued an Executive Order (EO) on Invasive Species. (full document at:

www.nps.gov/plants/alien/press/eo.htm) If you would like a copy, contact the VNPS office, sending a sase with 55 cents postage. The presidential press release on the same day succinctly stated: "Today, I am signing an Executive Order directing federal agencies to expand and coordinate their efforts to combat a serious environmental threat: the introduction and spread of plants and animals not native to the United States."

Many Americans are all too familiar with gypsy moths and other non-native insects that devour our gardens and trees. Few realize, however, that countless other non-native plants and animals are upsetting nature's balance, squeezing out native species, causing severe economic damage, and transforming our landscape...Some experts estimate the cost to the American economy to be as high as \$123 billion a year.

The Executive Order mobilizes the federal government to defend against these aggressive predators and pests. Led by the Department of the Interior, Agriculture, and Commerce, federal agencies will work together to prevent the introduction of non-native species and control those already here."

PCA (FNPCI) has been busy implementing the EO by forming the website, holding meetings and establishing (See EO, page 8)

VDOT's Operation Wildflower features no state natives on plates

The Virginia Department of Transportation (VDOT) has designed a new fundraising campaign and a new license plate to benefit Operation Wildflower, VDOT's highway beautification program. The new plate, which features bachelor's button, plains coreopsis and Queen Anne's lace, will be available at Department of Motor Vehicle offices once 350 pre-paid applications are received by VDOT.

The cost of the wildflower plate is \$25 per year, in addition to the vehicle registration fee. After the first 1,000 plates are purchased, \$15 from each additional plate will go to Operation Wildflower to fund seed packets, special highway plantings and marketing efforts.

"So where are the *native* wildflowers?" Good question, and one which we should direct to VDOT, as this is a perfect opportunity to not only celebrate Virginia's natural and native gifts, but to educate the public about them. A spray of Virginia bluebells, white trillium and wild columbine for example would certainly be just as attractive and VDOT could help introduce Virginians to the beautiful flowers growing in their woods, meadows and wetlands.

On a related note, VDOT has offered to plant native wildflowers in an area of the highway median in front of the State Arboretum of Virginia, which is also home to the VNPS office. VDOT solicited suggestions on what annual natives provide a long

blooming season, drought and heat resistance, and showy flowers. Black-eyed Susan (*Rudbeckia hirta*) was chosen for these criteria. The arboretum will furnish the seeds and VDOT will do the planting and minimal maintenance. Hopefully, this will inspire other such plantings across the state's highway medians, increasing the exposure and appreciation of Virginia native wildflowers. Suggestions for appropriate annual natives should be sent to the VNPS office. Those interested in the wildflower license plate can send inquiries to VDOT Environmental Division, Wildflower Specialty License Plate, 1401 E. Broad Street, Richmond, VA 23219 or call (804) 371-6820.

Jennifer Lee, VNPS Office Manager

Help make Virginia's Bird Trail a reality across the state

Settling in for some winter relaxation because the plants are dormant? Consider this a more quiet time of year? Well, the Department of Game and Inland Fisheries is working to change that. The staff has contracted with Fermata Inc., a nature-tourism consulting group, to assist with the creation of The Virginia Birding Trail.

The trail links wildlife viewing sites by existing highways to showcase the best of Virginia's wildlife year-round. Visitation and travel between sites is accomplished by use of a detailed, informative, and colorful map. It not only provides opportunities for wildlife viewing but economic benefits for local communities.

In November the department completed a series of public meetings to discuss the Coastal Trail. Future phases of the trail will include a Mountain Trail with Central Trail connections. The trail should benefit wildlife by increasing awareness of wildlife habitat, facilitate

wildlife watching by unifying a series of sites across the state, and enhance local communities by linking them with the trail as a marketing platform.

Department staff members are working to build community support for the Birding Trail project, compiling site nominations for inclusion along the Trail, and applying for TEA-21 funding. TEA-21 (Transportation Equity Act for the 21st Century) funding is allocated through competitive application for community enhancement projects emphasizing cultural and environmental enrichment, such as the Virginia Birding Trail. Already, meetings have received much support. Now it's your turn to help! To make this project a true success, we must act quickly to continue our momentum and accomplish our immediate goals.

"So what can I do?" you ask. YOU need to nominate sites. As nature watchers and wildlife enthusiasts, you know some of the best viewing places. Sites for this first phase, the Coastal Trail, should be in counties bisected by or east of I-95. You can also include suggestions for site improvements (e.g. roadside pull-offs, plantings using native species, boardwalks, or viewing platforms). Remember these spots do not have to be for birds only.

Although titled a Birding Trail, the trail is for all wildlife viewing opportunities.

The most effective site nominations will be those completed in conjunction with the site's owner or manager. Nomination forms and additional information are available from the department's web site. Once completed, nomination forms should then be sent to Fermata Inc. (address on the form). Site nominations received before the January 31 deadline will be included in the funding application although nominations will still be accepted after the deadline.

Public participation in this project is critical for the Birding Trail's success. Support from individuals, communities, the tourism industry, natural areas, and other groups interested in developing partnerships is needed.

If successful in the funding quest, the department hopes to have the Coastal Trail identified, arranged, developed, and mapped within a year following the October 2000 allocation. For site nomination forms, more information, or to discuss opportunities for Birding Trail partnerships, contact the department at: e-mail: birdingtrail@dgif.state.va.us; phone: (804) 367-4335; or <http://www.dgif.state.va.us/> (follow link to "wildlife").

•Cultivating creeper

(Continued from page 4)

be clawed away from windows if the inhabitants are not to become troglodytic [like cave dwellers] in a couple of years."

On the other hand (and Virginia creeper always has another hand), there are some places, like barn walls, where Virginia creeper does little harm and lots of good. Not only is the drapery of red it creates a traffic-stopping spectacle, but its presence is a bonanza to birds. The vines and leaves provide cover and nesting sites, and Virginia creeper's blue-black berries provide food to over 30 species of birds. Mockingbirds, robins, bluebirds, brown thrashers and thrushes are among the birds that relish Virginia creeper's grape-like berries.

So the next time you see a Virginia license plate depicting a cardinal on dogwood, remember it might well have been a mockingbird on Virginia creeper, and give this native vine the respect it deserves. Nancy Hugo, VNPS Publications Chair

•Vines for wildlife

(Continued from page 5)

that will attach to the support and the older stems become woody with age. As a result, the vine eventually supports itself so that you no longer need to tie it.

There is one more native vine that has a high wildlife rating, but it might not be one you really want in your yard. Its name is *Toxicodendron radicans*-poison ivy! Watch for birds eating its waxy-white fruits throughout the fall when you visit wild areas, but remember that even though many birds and small mammals eat the berries, every part of the plant is poisonous to humans. It's not called poison ivy for nothing!

Marlene Condon, VNPS member and nature writer

•EO

(Continued from page 7)

working groups: Invasive Alien Plants: Weeds gone wild www.nps.gov/plants/alien/; Restoration working group: restoration toolbox www.nps.gov/plants/restore/; Medicinal plant working group: green medicine www.nps.gov/plants/medicinal/; Pollinator working group; and the Public outreach working group. VNPS is represented in the working

groups involved in invasive alien plants and medicinal plants. Nicky Staunton and Jessica Strother participate in the invasive alien plant group and Vickie Shufer is involved with the medicinal plant group, which is newly formed. Reports to members of VNPS will be given to the Board of Directors and appear in future issues of the *Bulletin*.

Nicky Staunton, Conservation Chair

Women's wildflower weekend

Come to a Women's Wildflower Weekend May 19-21 at Jesse Cabin in Franklin County, Virginia. The event runs from a 7 p.m. Friday dessert until a 1 p.m. Sunday brunch. The theme is "Renewal through exploring the out-of-doors." Come sit by an old-fashioned cabin at Jones Lake to feast and reflect among the spring wildflowers. The cost is \$150/\$135 paid in full by April 15. A \$50 non-refundable deposit holds a place (enrollment is limited). Lodging, meals and activities included in the cost. For information, contact Kay Montgomery at kmontgom@roanke.infi.net or phone 540-721-2131.

Wildflower symposium

For the past 16 years, The Wintergreen Nature Foundation has hosted its Spring Wildflower Symposium in the beautiful Blue Ridge mountains at Wintergreen Resort in central Virginia. On May 12-14, field botanists, lecturers, naturalists and instructors will once again come together for a weekend of guided hikes, workshops and lectures on the region's native flora. Participants choose from over 50 field and lecture sessions including native gardening, field identification, edible and medicinal plants, forest ecology, and threatened and endangered species. For a brochure, e-mail: wtgnf@aol.com, web site at www.twnf.org, or call 804-325-8169.

Spaces still available for Bruce expedition

Members of VNPS are looking forward to visiting Canada's peninsula between Lake Huron and the Georgian Bay in Ontario in June of 2000. Currently, there are six spaces available for the trip. Your space will be reserved upon receipt of a \$50 deposit. Though many VNPSers are "last minute" people, it is necessary to respond immediately if you are interested in going. Without a minimum number of 12, the trip will be postponed until 2001. The lodge wants our reservation confirmed in February.

Total cost per person is \$450 which covers lodging, all meals and the boat ride to Flower Pot Island. Travel to and from Canada is the responsibility of participants. Usually, the trip of 700 miles from northern Virginia is broken into two parts with travelers spending the first night outside of Buffalo, N.Y. then completing the trip the next day to Wildwood Lodge. Co-leader for the trip in 2000 will be Cris Fleming, accomplished professional field botanist from Maryland and past director and education chair of VNPS. An especially exciting account of the trip in 1999 was written by Bess Murray of the Jefferson Chapter in the August 1999 issue of the VNPS *Bulletin*.

If you would like to enjoy Canada's beautiful flowers and plant communities June 10-17, send a \$50 deposit per person, payable to VNPS, attention: Nicky Staunton, 8815 Fort Drive, Manassas, VA 20110. If the minimum number of participants is not reached, the \$50 deposits will be refunded. Deposits must be received no later than February 14. If you have questions, please contact Nicky Staunton (e-mail: staunton@erols.com or 703-368-9803).

A gift to VNPS will get 2000 off to a great start

Remember, saying that you care makes twice the impact with a tax-deductible gift to the Virginia Native Plant Society dedicated in someone else's name. The contribution could be made as a gift to someone who loves wildflowers, could honor a special birthday, could memorialize a loved one or friend, or could just let someone special know you are thinking of both them and native plants.

Your gift will strengthen VNPS programs and help with the new office at

Blandy in the coming year 2000! Please accompany your gift with: **YOUR NAME AND ADDRESS; NAME AND ADDRESS OF PERSON(S) TO NOTIFY OF YOUR GIFT; and THE TYPE OF GIFT YOU ARE SENDING.**

Gifts should be sent to: VNPS, Attn.: Special gift fund, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2 Boyce, VA 22620.

Thanks. Your VNPS Board of Directors

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$15 first year (\$20 subsequent years)

___ Family \$30 ___ Student \$15

___ Patron \$50 ___ Associate (groups) \$40*

___ Sustaining \$100 ___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

I wish to make an additional contribution to ___ VNPS or ___ Chapter in the amount of ___ \$10 ___ \$25 ___ \$50 ___ \$100 ___ \$(Other) _____

___ Check if you do not wish your name to be exchanged with similar organizations ___ Check if you do not wish to be listed in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The Bulletin

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The deadline for the next issue is Feb. 1

• Wilderness

(Continued from page 1)

of the first Wilderness Area in Virginia, the James River Face consisting of nearly 9,000 acres just south of the point where the James River breaks through the Blue Ridge. The following year, a separate act established 80,000 acres of wilderness in the Shenandoah National Park.

The 1984 Virginia Wilderness Act added eleven more areas to the system: Ramsey's Draft, St Mary's River, Thunder Ridge, Mountain Lake, Peters Mountain, Kimberling Creek, Beartown, Little Dry Run, Lewis Fork, Little Wilson Creek and an addition to the James River Face. Four Wilderness Study Areas were also created: Barbour's Creek, Shawver's Run, Rich Hole and Rough Mountain. In 1988 those four became fully-fledged Wilderness Areas, together with additions to Mountain Lake and Lewis Fork.

Advocates are disheartened that there have been no new Wilderness Areas in Virginia since that time. But wilderness "beavers" never stop working, and currently there is heightened activity and a unique opportunity. In the final plan for the George Washington, three areas are recommended for wilderness, the mountains of Three Ridges, The Priest and an addition to St Mary's. The political climate in the

6th Congressional District is not favorable to wilderness designation at this time, so St Mary's may have to wait, but Congressman Virgil Goode in the 5th is open-minded, and sensitive to the feelings of his constituents. If you're from Nelson County (LOCAL opinion is extremely important), let him know that you would like him to sponsor a Wilderness Bill for Three Ridges and The Priest.

Three Ridges is one of the most rugged places in the Virginia Blue Ridge, rising steeply from the Tye River to almost 4,000 feet at the summit, with rocky outcrops (and impressive wildflowers) and spectacular views of all the surrounding mountains, including The Priest, on the other side of the Tye River and Route 56. The two mountains form a majestic gateway to Nelson County and are unquestionable candidates for protection in perpetuity. And with the Appalachian Trail running over both of them, their glories are accessible to native plant lovers and anyone else with strong lungs and boots!

In the Jefferson, the plan is still in the draft stage, and environmentalists have been assiduous in urging wilderness recommendation (category 1B in U.S. Forest Service parlance) for all suitable roadless areas. The most im-

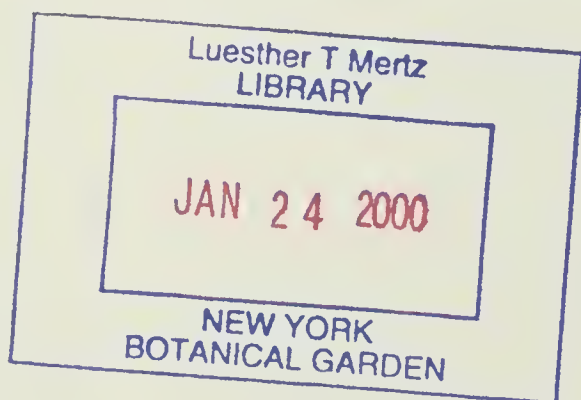
portant ones are North Fork of the Pound in Wise County, Raccoon Branch in Smyth County, Crawfish Valley in Smyth and Wythe counties and Garden Mountain and Hunting Camp/Little Wolf Creek in Bland County.

Peter Kirby, from the Wilderness Society, recently completed a seven-month, 1,000 mile hike along the Appalachian Trail from Georgia to Harper's Ferry, promoting conservation for adjacent wildlands. Virginia Wilderness Committee members who joined him at many points along the way through Virginia were treated to some wonderful hikes, flowers and other natural history in some of the best countryside of our state.

It's crucial to keep a core of the "best" for ever. Congressman Rick Boucher, whose 9th District includes much of the Jefferson, is sympathetic to the wilderness concept and follows the forest planning process closely. But he, too, needs to be reminded about just how many people think that wilderness designation is desirable—important—absolutely essentially and vital. For more information about wilderness concerns, contact Jim Murray, President Virginia Wilderness Committee, 1601 Bentivar Farm Road, Charlottesville, Va. 22911, jm5a@virginia.edu or 804-973-6693.

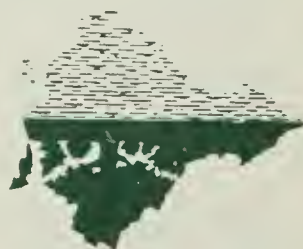
Elizabeth Murray, Jefferson Chapter

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Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

Coastal plant communities offer opportunity for discovery

As I walk across the dunes on my way to the beach, I feel like I am in the desert. Beneath my feet is sand, as far down as you can dig, nothing but sand. The summers along the mid-Atlantic coast are hot and dry; winters cold and windy with salt air blowing off the ocean. The beach, at first glance, appears lifeless. Pounding surf and rising tides prevent plants from getting established.

Coming up from the beach, near the base of the primary dune line and yet above the reach of the high tide, the sea rocket (*Cakile edentula*) makes its appearance. Usually it is the first plant you will see before crossing the dunes. A member of the mustard family, it has thick, succulent, dark green leaves. The succulent leaves are an adaptation to the harsh environment. When it rains, water is taken

up by the plant and stored in the leaves. The water also dilutes the salt content. A waxy coating on the leaves protects them from the sun's intense rays. Roots extend deep into the sand to draw up water from down below. In the spring and again in the fall, tiny sprouts emerge from the sand. Hundreds of seeds were dropped by the parent plants before they died back and many of them germinate. As an annual, they only live one season before they bloom, produce seed, and die.

Plant life in the dunes is limited to a select number of species that have adapted to this environment. Crossing the primary dune, the most common plants I see are the sea oats and beachgrasses. Their role is to hold the dunes in place. The flexible stalks can bend with the wind without breaking, often leaving concentric circles in the sand. During dry periods the long, nar-



row leaves curl up to reduce water loss through transpiration.

The seaside evening primrose (*Oenothera humifusa*) has white fuzz on its leaves that acts as a protective covering from the sun. The roots are skinny and go way down into the (See *Unique*, page 8)

Annual Meeting to highlight the diversity of the Appalachians

A pair of writers who seem more suited to being outside than sitting in front of a computer will be the featured speakers at the VNPS Annual Meeting held in Roanoke June 2-4 and hosted by the Blue Ridge Wildflower Society.

"Habitual Hiker," Leonard Adkins will present Friday evening's program, "Wildflowers of the Appalachian Trail." Leonard, author of more than half a dozen hiking books, has been involved with the AT for more than two decades and has hiked its length four times. His latest book, *Wildflow-*

ers of the Appalachian Trail, is a wonderful companion for day hikers or through hikers on any trail in the Mid-Atlantic states. Having tramped more than 16,000 miles of trails gives Leonard the expertise to approach his subject with eloquence.

Saturday's program will feature Chris Bolgiano, an author known for her naturalist writings. She will speak on the Appalachian Forest, an appropriate topic for a meeting set in Virginia's mountains. Chris is the author of *The Appalachian Forest: A Search*

for *Roots and Renewal*. Using historical and contemporary slides, Chris will give an overview of the natural and cultural histories that have shaped the world's most biologically diverse temperate forest. Her program will also include short readings from her book.

In addition to these two programs, VNPSers will choose from 14 different full-day and half-day field trips on Saturday and Sunday to a variety of places. See the insert in this *Bulletin* for more information on the weekend's events and to register.

From the President

As I was looking at the beautiful slides on native rhododendrons presented by George McLellan of the John Clayton Chapter at the meeting of the Pocahontas Chapter, I began to imagine seeing these fantastic plants in bloom on walks at the Annual Meeting in June. Many exciting field trips have been planned for us. Not only will we have great opportunities to see wild azaleas, rhododendrons, and mountain laurel in bloom, but we will also see unusual wildflowers which have adapted to difficult locations such as the shale barrens. There will be hikes along a waterfall, in an arboretum and gardens, and along the Blue Ridge Parkway, north and south. In early June in the mountains, the weather is very comfortable — just right for hiking. By June most people are begging for a chance to get away. I couldn't think of a better place to visit than the mountains! You won't have to compete with tourists getting accommodations since rooms have been reserved for you at the Tanglewood Holiday Inn located on I-81. Good restaurants can be found in nearby Roanoke. For those of you looking to photograph wildflowers, this is a chance you don't want to miss! Your friends won't believe that the Virginia mountains have such beautiful plants. So, don't pass up this chance to see one of nature's really great shows because if you do you will want to give yourself a deserved kick in the pants!

While on the subject of walks, all of the chapters offer wonderful walks in their service areas. These walks are educational in that they show you what kinds of plants are to be found in specific habitats of Virginia. On these walks you also get to meet and make new friends from other chapters. I know that sometimes the temperature may soar, especially in summer. However, it is during the summer as well as spring that the wildflowers are blooming. If you dress coolly, bring a camera, and/or a little notebook for recording what you see, and carry water, you will soon forget the temperature. The walks don't have to be strenuous, for you have to walk slowly in order to really look at the plants. So, while you are wondering how you are going to get rid of holiday pounds, seriously consider becoming more active in events planned by all of the chapters.

Your President, Marie F. Minor

The Virginia General Assembly and You.....

This year, our Virginia legislators have considered legislation that would stop draining wetlands (Tulloch ditching), that would list loosestrife (*Lythrum salicaria*) as a noxious weed, and that would control weeds, grasses and other foreign growth.

This is the first year that I have been able to move around the Virginia legislative website and I want to urge each of you with internet access to use this fabulous tool that was established by our legislators in 1995. Allow yourself a little time to visit the Virginia General Assembly at (<http://legis.state.va.us>) and begin with the Information Site ([http://](http://legis.stat.va.us/site.htm)

legis.stat.va.us/site.htm). Then, move through the links it offers, especially the fascinating [//legis.state.va.us/sitemap.htm](http://legis.state.va.us/sitemap.htm) link.

From the original site you can link to delegates and senators and see the bills they entered as patron or co-patron. You can track bills by legislator, subject, bill number and amendment. To look for a specific bill: <http://leg1.state.va.us/lis.htm>. A suggestion based on experience though is to use your bookmark everytime you browse to a page, because you cannot always move back and might not remember the sites through which you travelled.

The Website lists the following numbers. Use them! **TOLL FREE** - The Constituent Viewpoint toll-free opinion line is 800-889-0229. Callers

HELP WANTED!

Are you concerned about Virginia's natural areas? Do you believe in the VNPS invasive alien plant program? Can you travel during the week? Would you be available and interested in working with Ted Scott in propelling the IAP program into the future? Please advise Ted at e-mail: vnpscott@aol.com or by phone: 540-568-8679.

in Richmond area dial: 698-1990. This enables your brief opinion to be delivered directly to your legislator! Free. Fast. **WEB/INTERNET LISTS** - Find out who represents you in the House and Senate <http://206.246.254.9/whosmyconstinput.asp>.

Use the listing of all 140 General Assembly members: <http://leg1.state.va.us/001/mr/MBR.HTM>.

E-mail - Most of the member web pages contain links to their legislative e-mail addresses. Click and let them know what you think about any specific legislation before them.

By the time you receive this *Bulletin*, this year's General Assembly work will be complete or nearly so. Next year, we will bring you the legislative website information as a reminder before the legislature assembles and, also, highlight some of the environmental bills. Meanwhile, practice your skills with Virginia's website the rest of the year.

Correction: The article on native vines by Marlene Condon which ran in the last issue of the *Bulletin* should have indicated that it was a reprint from *Real Estate Weekly* in Charlottesville. The editor apologizes for the oversight.

VNPS leader remembered

Sad news reached us at VNPS that Jim Minogue died December 21, 1999 following failing health. Jim is remembered as having served VNPS through many years as a Director-at-large for two terms and as 2nd Vice President for three terms of office through 1996. We express our condolences to Peggy, his wife, and to all of his family. He was a good friend of VNPS and of wild flowers and wild places.

New flora checklist for Washington area should stimulate research

A new catalog of the native and naturalized plants growing in the vicinity of our nation's capital has been under preparation for several years, and now the first part is finished and soon to be released. It was written by Stanwyn G. Shetler and co-authored by Sylvia Stone Orli. The *Annotated Checklist of the Vascular Plants of the Washington-Baltimore Area - Part I. Ferns, Fern Allies, Gymnosperms, and Dicotyledons*, is a total revision of Frederick J. Hermann's more-than-50-year-old catalog, *A Checklist of the Plants in the Washington-Baltimore Area*, duplicated and distributed by the Smithsonian in 1946. Orli was responsible for the database portion of the work which is also available in search format on the Smithsonian Museum of Natural History website: www.nmnh.si.edu/botany/projects/dcflora.

The *Annotated Checklist* continues a long tradition of studying the flora of this area, which dates back to the early 1800s. The last identification manual was published in 1919 by A. S. Hitchcock and Paul C. Standley, with collaborators. Their *Flora of the District of Columbia and Vicinity* covered a radius of 15 miles from the capital. Hermann's *Checklist*, issued in 1941, was the hopeful initial step of the Conference on District Flora of the 1930s and 1940s toward the complete revision of Hitchcock and Standley's

Flora for a much wider geographical area, covering an approximately 50-mile radius from D.C. It never happened—that is until Shetler and Orli produced this up-to-date checklist in the hope of stimulating a collaborative effort to produce a new manual.

The "Washington-Baltimore Area," as defined by Hermann and used by the authors, is bounded on the north by the Maryland-Pennsylvania line, on the east by the Chesapeake Bay (western shore), on the south by the Rappahannock and Rapidan Rivers, and on the west by the east foot of the Blue Ridge Mountains. It includes the Bull Run and Catoctin mountains, but excludes Shenandoah National Park and the Eastern Shore. Encompassed are the District of Columbia, 23 counties and five cities in Maryland and Virginia. The checklist should be useful well beyond these boundaries.

The *Annotated Checklist* is based on the Smithsonian's Herbarium of the Washington-Baltimore Area and the region's current literature. In addition to the native species, it includes introduced alien (exotic) species that are naturalized—reproducing and spreading in the wild without cultivation even if only on a limited scale. The text includes the correct scientific (Latin) name and its synonyms; common names; in-

dication of whether the species occurs in D.C., Maryland and Virginia sectors of area, with appropriate documentation, including some specimen citations; indication of whether native or naturalized; and sometimes comments.

Part I, which includes 2001 species (1221 native, 780 [39 percent] introduced), is being distributed in preliminary form so that it can be reviewed, criticized, and revised through use while it is current and the second part (Monocotyledons) is still in progress. The authors hope the checklist will stimulate a new wave of fieldwork to check on the current status of the local flora relative to what was reported to them. When Part II is finished, the two parts will be combined into a single publication.

Copies of the book, which is spirally bound in easy-to-use format, are free while supply lasts, thanks to support from the Smithsonian Institution and the Virginia E. Crouch Memorial Fund for Native Plant Conservation and Research, administered by The Nature Conservancy. Send requests with mailing address to Stanwyn G. Shetler at Department of Botany, NMNH, Smithsonian Institution, Washington, D.C. 20560-0166 shetler.stanwyn@nmnh.si.edu; or 202-786-2563 (FAX). Distribution is expected to begin by April 1.

Stanwyn G. Shetler, VNPS Botany Chair

VNPS members have unique opportunity to visit Mt. Cuba

Mt. Cuba Center for the Study of Piedmont Flora is recognized by most people who have visited it as one of the finest exhibits (if not the finest) of native flora in this country. Although Mt. Cuba is open to the public only one day per year, reservations for groups such as native plant societies are accepted from April to September. Mt. Cuba is the private home of Mrs. Lamont duPont Copeland, and it is through her unusual generosity that we are able to visit the garden. Based on this visitor's experience and that of 55 VNPS members who visited the garden in 1995 and 1997, it has been assumed that many more of our members would delight in seeing this garden.

A tour for 25 to 30 VNPS members has been arranged for 1 p.m. Wednesday May 10 which should see the garden very near its spring peak. The tour will last approximately two hours, and there is no charge. However, there are some logistics to be worked out, as it will require approximately 2.5 to 3 hours to get to Wilmington, Delaware (from Manassas). Because we must advise the garden at least two weeks in advance of our visit, we must know who intends to go. Therefore, we are asking those who seriously intend to make the trip to please register their names, addresses, and phone numbers along with information available on carpooling space to: Ted Scott, 100 Sunnyside Drive Unit 32,

Harrisonburg, VA 22801, phone 540-568-8679 or e-mail vnpscott@aol.com no later than April 4. At that time Ted will advise those who want a ride whom they might contact for carpooling. Of course, it would be much simpler if those going could arrange their own parties and transportation, but everyone going must register. Please do not register if you are not sure, thereby denying someone else the opportunity. Additional instructions will be sent to all registrants. Anyone who went in 1995 or 1997 who wishes to go again may submit his/her name; they will be assigned to unfilled first-timer spaces on a first-come, first-served basis.

Ted Scott, Shenandoah Chapter

Virginia Wildflower Celebration 2000

The nine chapters of the Virginia Native Plant Society celebrate the rich diversity of the native flora of the Commonwealth each spring. Society members will share their enthusiasm for wild plants and wild places on field trips and wildflower walks, and during garden tours, plant sales, and a variety of other programs throughout the state. The celebration will culminate with the annual meeting in June.

You are cordially invited to any of the activities listed below; they are all open to the public. As some events require reservations, fees or additional instructions, use the telephone numbers provided to obtain further information. Plants propagated by members will be available at chapter plant sales.

The 2000 Virginia Wildflower of the Year, flame azalea, qualifies as one of Virginia's most spectacular native flowering shrubs. Flame azalea is a deciduous shrub up to 10 feet high and 15 feet wide with clusters of large yellow to orange flowers. Typically *Rhododendron calendulaceum* blooms in Virginia in June and early July. Flame azalea grows in the mountains in open woods, waysides, grassy balds, and pastures. It is indigenous in nearly all of Virginia's central and southwestern mountain counties. Look for it, in particular, along the Blue Ridge Parkway.

Wildflower Calendar of Events

Dragon Run canoe trip - Saturday March 18, 3-4 hours. Middlesex Co. Friends of Dragon Run lead trip in cypress swamp (John Clayton). F.O.D.R. provides canoes, vests, paddles. Bring lunch, drink, change of clothing in a waterproof bag. Contact David Clements 804-693-4448 to register.

Great Falls Park, Virginia Wildflower Walk - Sunday March 19, 10 a.m.-12:30 p.m. Walk to be led by Marion Lobstein. Call 703-536-7150 for reservations or if questionable weather

South Hampton Roads Native Plant Sale - Saturday March 25, 11 a.m.-3 p.m. Sale at Francis Land House in Virginia Beach. Take I-64 to 264 toward the oceanfront; take Rosemont Rd. exit and turn right. Go to Virginia Beach Blvd., make another right. The house is on the right about a mile east of Rosemont before Lynnhaven Pkwy. Contact Joy Eliassen at 757-431-4000.

Gloucester farm walk - Saturday March 25, 9 a.m., 2-3 hours. (Rain date March 26, 1 p.m.) Visit Summerfield Farm in Gloucester Co. (John Clayton). See trailing arbutus, spring beauty, cranesbill, lady's smock, spicebush, violets, and old daffodil varieties. Difficulty level adjusted to participants. Call Mary Hyde Berg 804-693-3568 to register.

Roosevelt Island tour - Sunday March 26, 9:30 a.m.-3 p.m. Marion Lobstein to conduct Smithsonian Associates tours to a Potomac island at Washington, D.C. Call 202-357-3030 for information on Associates tours.

Rappahannock Community College nature trail - Friday April 7, 10 a.m., 2-3

hours (Rain date April 10) Located on Rt. 33 in Gloucester Co. See the strange and beautiful woodland orchid, *Isotria verticillata*, and other spring ephemerals. Moderate slopes. Contact Sylvia Sterling (John Clayton) 804-693-5329 to register.

Dragon Run canoe trip - Saturday April 8, Friends of Dragon Run BYO canoe trip. Contact David Clements 804-693-4448 to register.

Great Falls Park, Virginia Wildflower Walk - Sunday April 16, 10 a.m.-12:30 p.m. Walk led by Marion Lobstein. Call 703-536-7150 for reservations or if questionable weather.

Jefferson Chapter spring ephemerals trip - Sunday April 2, 12:30 p.m. Explore Virginia Military Institute Bluffs in Lexington in search of spring ephemerals with Ken Lawless. Easy walk to see rare plants such as *Paxistima* and *Senecio pauperculus*. One hour drive from Charlottesville. For information 804-293-7382.

Middle River field trip - Sunday April 9, 12:30 p.m. Visit the Middle River near Verona to view a wide range of ephemerals thriving in a limestone cliff habitat. A more difficult walk with steep slopes led by Ken Lawless; a 40-minute drive from Charlottesville. For information (Jefferson) 804-293-7382.

Lee's Park fieldtrip (Petersburg) - Wednesday April 12, 9 a.m.-4 p.m. This park offers the opportunity to see *Senecio tomentosus*, *Houstonia pusilla*, wild azalea, and perhaps *Isotria verticillata*. Call Donna Ware (John Clayton) 757-221-2213 to register. Bring lunch and liquids.

Plant identification course & fieldtrip - Wednesday April 12 & Saturday April 15. Marion Lobstein will teach a two-part spring wildflower identification course for Green Spring Gardens Park. A lecture on wildflower identification given the evening of April 12 at Green Spring Gardens Park with follow-up plant ID fieldtrip to Balls Bluff April 15. Call Green Spring Gardens Park at 703-642-5173.

Guthrie's Green fieldtrip (King and Queen County) - Saturday April 15, 11 a.m. (Rain date April 16, 1 p.m.) See Carolina Jessamine in open pine waterfront woods. Easy, level walking. Contact Virginia Fick (John Clayton) 804-785-2203 to register. Bring lunch; optional boating follows.

Piney Grove-Zuni - Sunday April 16, 8 a.m. - Full-day trip to Piney Grove-Zuni in the Blackwater River Preserve, a 2.5 to 3 hour drive from Charlottesville. See the rare red-cockaded woodpecker in its unique pine forest habitat as well as pyxie moss, yellow jessamine, *Senecio tomentosus*, and *Viola primulifolia*. Relatively easy walk led by Ken Lawless. For information (Jefferson) 804-293-7382.

Balls Bluff Wildflower Walk - Sunday April 16, 2:30-4:30 p.m. Marion Lobstein to lead a VNPS walk to Balls Bluff. Call 703-536-7150 for reservations or if questionable weather.

Hickory Hollow trip (Lancaster County) - Tuesday April 18, 10:30 a.m.-12:30 p.m. (Rain date April 19) Wooded hills that drop to wide swamps display an astonishing variety of uncommon

Virginia Native Plant Society

Annual Meeting

June 2-4, 2000

Visit Southwest Virginia as guests of the Blue Ridge Wildflower Society. Explore the habitats of the area, hear stimulating speakers, and visit with old and new friends at the 2000 VNPS Annual Meeting. You will be glad you did!

Weekend Schedule of Events

All events at Holiday Inn Tanglewood, Roanoke. Details on lobby signs.

Friday, June 2

3 p.m. Rooms available for check in

Dinner on your own - hotel restaurant or many restaurants nearby (list available)

****4:30-7 p.m. Quarterly Board Meeting**

7-10 p.m. Registration and space for chapter and state displays, sales, cash bar, raffle of donated artwork and plants, social gathering

8:30 p.m. Opening remarks and evening presentation, "Wildflowers of the Appalachian Trail," by author Leonard Adkins

Saturday, June 3

Breakfast on your own

8 a.m. - 4:30 p.m. Fieldtrips. All trips leave from hotel parking lot

5-7 p.m. Social gathering, sales, cash bar, silent auction

6 p.m. Annual business meeting, election

7-8 p.m. Dinner (casual dress)

8:15 p.m. Evening presentation, "Appalachian Forests," by author Chris Bolgiano

Sunday, June 4

Breakfast on your own

9 a.m. - noon Field trips

Have a safe trip home and thank you for visiting our part of the state

Accommodations

A block of 100 rooms is reserved for VNPSers for Friday and Saturday nights at Holiday Inn Tanglewood, 4468 Starkey Road, SW, Roanoke, VA 24014; (540) 774-4400; fax (540) 774-1195. Non-smoking, adjoining rooms and handicap rooms are available. Free parking. Complimentary airport shuttle service. **Callers must identify themselves as VNPS and must call for reservations by May 19, 2000 to guarantee space.** After this date rooms will be released to other groups and same rate may not be available. VNPS group rates for June 2 & June 3 are \$67 single/double. Check-in is 3 p.m.; check-out is noon. Room reservations will be held until 6 p.m. the following morning at which time the reservations and the deposit are forfeited. **Location & directions to the hotel:** From I-81, Rt. 11 or Rt. 460, take I-581 (Roy Webber Expressway) south to Rt. 419 (Electric Road). Turn right on Rt. 419, go to intersection with Starkey Road (Blockbuster Video on right). Turn right on Starkey Road to Holiday Inn Tanglewood. From the Blue Ridge Parkway, get off the Parkway at intersection with Rt. 220, just south of Roanoke. Drive north to intersection with Rt. 419 (Electric Road). Turn left on Rt. 419 to intersection with Starkey Road. Turn right on Starkey Road to Holiday Inn Tanglewood.

SATURDAY FIELD TRIPS

Please specify on the registration form the field trip number in which you plan to participate. Be sure to mark a second choice in case your first choice is at capacity when your registration is received. Times listed are for actual trip. Travel time not included. Lunches provided for all trips. Recommended for all trips: hats, repellent, sunscreen and appropriate footwear. All walks begin from the Holiday Inn Tanglewood parking lot. Please carpool as much as possible as some areas have very limited parking.

SATURDAY FULL DAY FIELD TRIPS

1 ___ **Blue Ridge Parkway North, 8 a.m.** - Motorcade the Blue Ridge Parkway north of Roanoke and enjoy walks including the Peaks of Otter, Flat Top, and Thunder Ridge areas noted for a variety of plants including trillium, lady slipper and Dutchman's pipe. Be sure to bring your binoculars to catch sight of a warbler or two. Easy/Moderate

2 ___ **Blue Ridge Parkway South, 8 a.m.** - Join the caravan for a unique trip along the Blue Ridge Parkway south of Roanoke. Enjoy scenic vistas and pastoral scenes interspersed with a diversity of plant life including both forest and meadow wildflowers such as whorled pogonia, pink lady slipper and flame azalea. Along with botany, enjoy local history and geology as well. Easy/Moderate

3 ___ **Shale Barrens & Roaring Run, 8 a.m.** - We will drive through a shale barren area and along an old railroad bed to see some of the plants characteristic of shale barrens. From the shale area, we'll drive to Roaring Run and then walk through a deciduous forest along a mountain stream. The walk (about 1.5 miles) is not strenuous. However, it is rocky and can be challenging. A waterfall is located at the end of the trail. Total driving distance is approximately 80 miles. Moderate

4 ___ **The Cascades, 8 a.m.** - The Cascades Recreation Area is in the lower section of the Little Stony Creek Valley. It is predominantly grassy and shaded by apple and pear trees as well as native buckeyes, boxelders and walnut trees. Little Stony Creek is a native trout stream. The Cascades National Recreation Trail ascends the gorge for 2 miles to the picturesque 66-foot Cascades waterfall. This is a 4-mile round trip. Strenuous

SATURDAY HALF DAY FIELD TRIPS

5 ___ **Pedlar Hills, 8 a.m.** - Pedlar Hills is a Natural Heritage site with dolomite glades. Addison's leather flower (endemic to four counties in Virginia) and other glade wildflowers are found here. Easy/Moderate

6 ___ **Community Arboretum/Mill Mountain Garden, 1 p.m.** - The Mill Mountain Wildflower Garden and the Community Arboretum at Virginia Western Community College contain a host of beautiful wildflowers and trees. There is a "plant zoo" at the arboretum, which was established in memory of Dr. John Walke. Easy

7 ___ **Maggodee Creek, 8 a.m.** - The gardens of Paul James feature one of the rarest rhododendron collections in the country. His is a collector's garden where every azalea and magnolia native to North America can be seen. This walk is a visual delight, and James is an informative host. Easy

8 ___ **Woodpecker Ridge Bird & Wildflower Walk, 8 a.m.** - This growing nature preserve is a candidate for the VNPS site registry program. A variety of habitats invite a number of birds to this lovely area, which contains many trees and wildflowers native to the area. Easy/Moderate

9 ___ **Falls Ridge Nature Conservancy Area, noon** - Visit one of Virginia's most unique conservancy areas. Many wildflowers, as well as interesting formations, can be seen. A view from the trail will include an ever-changing waterfall. Moderate/Strenuous

SUNDAY HALF DAY FIELD TRIPS

10 ___ **Grassy Hill, 8 a.m.** - Grassy Hill is a Natural Heritage site. It is forested with openings containing native Piedmont prairie wildflowers. There is also an old growth forest. Easy/Moderate

11 ___ **Arcadia, 8 a.m.** - This beautiful forest area is just off I-81 north of Roanoke, making it a fantastic walk before the drive home for participants heading north. It features shale barrens and stream bottom flowers. Moderate

12 ___ **Community Arboretum/Mill Mountain Garden, 8 a.m.** - See Saturday's description. Easy

13 ___ **Randolph-Macon Woman's College Botanic Garden, meet at RMWC at 10 a.m.** - The RMWC Botanic Garden was established in 1994 through the efforts of Dorothy Bliss, professor of biology, emerita, with help from VNPS and the Blue Ridge Wildflower Society. The garden contains about 200 species of plants native to the southeastern United States, including several endangered and rare plants as well as species of special botanic interest. A convenient walk for participants heading from the meeting to locations in central and eastern Virginia. Written directions to school will be provided. Easy

14 ___ **Peaks of Otter Rhododendron Walk, 8 a.m.** - Come tour the Peaks of Otter area for gorgeous displays of native rhododendron at its peak blooming time. Easy/Moderate

VNPS REGISTRATION FORM

Name_____ Telephone_____

Address_____ Chapter_____

_____ Number of persons_____

_____ e-mail_____

Field Trip selection

Circle below the number of your field trip preference (See attached list). Also indicate a second choice in case your first choice is at capacity when your registration is received.

Saturday Field Trips 1 2 3 4 5 6 7 8 9

Sunday Field Trips 10 11 12 13 14

If you are registering for more than one person, fill in the trip preferences for the second person on a separate sheet of paper along with that person's name.

Registration Fees

Registration fee: \$25 includes box lunch Saturday

Banquet fee: \$16.50, two-entree buffet dinner (Dinner reservations accepted until May 19. No dinner cancellation refunds within 72 hours of the banquet)

Number of persons registered	_____ (number x \$25)	=	Amount_____
Number of banquet dinners	_____ (number x \$16.50)	=	Amount_____
Total amount enclosed			Amount_____
TOTAL AMOUNT ENCLOSED_____			

Mail this form (with payment made payable to VNPS BRWS Chapter) to:

VNPS Annual Meeting
c/o Pam Wieringo
2740 Derwent Drive SW
Roanoke, VA 24015

For additional information, contact Cindy Sandberg (540) 977-0868

Wildflower Calendar of Events

plants. Steep trail. Contact Ann Messick (John Clayton) 804-435-6673 to register.

Trip to private natural areas in Gloucester - Thursday April 27, 1 p.m. (Rain date April 28). See natural yards of Martha Rhodes and Sandy Pate. Views of creek and marsh; see pinkster flower and other coastal species. Easy walking. Contact Martha Rhodes (John Clayton) 804-693-5744 to register.

Spring Wildflower Workshop - Friday April 28, 10 a.m.-2:30 p.m. Marion Lobstein will conduct a spring wildflower workshop and tour of the State Arboretum of Virginia grounds to practice identification skills and will conduct a follow-up spring wildflower identification walk at the Thompson Wildlife Management Area **Friday May 5, noon-3:30 p.m.** For registration costs & information, call Blandy Experimental Farm at 540-837-1758 ext. 0.

Buckingham County field trip - Saturday April 29, 12:30 p.m., Enjoy the springtime at John and Jean Buschmann's Buckingham County property. Glenn Metzler to lead a walk abundant with wildflowers including pink and yellow lady slippers, showy orchis, bellwort, spring cress, foamflower and leatherflower. A 45-minute drive from Charlottesville. For information (Jefferson) 804-293-7382.

Birding at Blandy - Saturday April 29, 7-9 a.m., Dave Carr will lead a walk around Blandy to observe birds. Bring binoculars and guidebook, meet at Blandy parking lot at 7 a.m., no charge. Call Mary Olien at 540-837-1758, ext. 30.

Plant identification course

Marion Lobstein will be offering a plant identification course during the summer at Blandy Experimental Farm and State Arboretum of Virginia. The field botany class (Course number EVEC 493/793) is a three-credit course through the University of Virginia. It runs from 9 a.m. to 4 p.m. June 26-29, July 3-7, and July 10-13. It will cover basic principles of botany with emphasis on the classification, identification, and evolution

Dogwood Symposium - Saturday April 29, 9 a.m.-5 p.m. Symposium at Blandy, \$75 fee. Call Mary Olien at 540-837-1758, ext. 30.

Dragon Run walk - Saturday April 29, 10 a.m. (Rain date April 30, 1 p.m.) David Rhodes will lead a walk in 50-acre tract on Dragon Run. Hardwood, young pine and cypress forests show the amazing diversity and richness of Dragon Run. Dress for woods with some brushy areas and light mud. Bring snack and liquids. Contact Mary Hyde Berg (John Clayton) 804-693-3568 to register.

PWWS Annual Garden Tours - Sunday April 30, The Prince William Wild Flower Society will host tours of three private gardens featuring native plants. Tours free and open to the public. Brochures available from chapter. Call Nancy Arrington at 703-368-8431.

National Arboretum tour - Sunday April 30, 9:30 a.m.-2:30 p.m. Marion Lobstein to conduct a Smithsonian Associates tour to the National Arboretum in Washington, D.C. Call 202-357-3030 about Associates tours.

Jefferson Chapter Native Plant Sale and Natural History Day - Sunday April 30, 1-3 p.m. Charlottesville at the Ivy Creek Natural Area, Hydraulic Rd./Rt. 743. Held with other organizations participating as a Natural History Day. Sale plants include: Virginia bluebells, trilliums, phlox, columbine, maidenhair fern, cinnamon fern, poppy, wild ginger, purple coneflower, big bluestem and Jack-in-the-pulpit. Call 804-296-6464.

of flowering plants. It will integrate lecture and laboratory with an emphasis on fieldtrip experience concentrating on identification and ecology of flowering plants of the Mid-Atlantic region. Teachers will have opportunities for applying the course information to meeting SOLs in their classroom. For information call Blandy at 540-837-1758 ext. 21 or Marion at 703-536-7150.

Gloucester farm walk - Tuesday, May 2, 9 a.m. (Rain date May 3) 2-3 hour walk at Summerfield Farm, difficulty adjusted for participants. See wild fringe trees, mountain laurel, rare violets, lupines, blooming partridgeberry and water iris. Contact Mary Hyde Berg (John Clayton) 804-693-3568 to register.

Thompson Wildlife Management Area scouting walk - Thursday May 4, 10 a.m.-12:30 p.m. Marion Lobstein will lead a VNPS scouting walk to Thompson. Call 703-536-7150 for reservations or if questionable weather.

Saturday Leaves - Saturday May 6, 10-11:30 a.m., Docent-led nature walk on the Blandy grounds, small fee. Call Mary Olien at 540-837-1758, ext. 30.

Thompson Wildlife Management Area and State Arboretum tour - Saturday May 6, 8:30 a.m.-6:30 p.m. Marion Lobstein will conduct a Smithsonian Associates tour to Thompson Wildlife Management Area and State Arboretum. Call 202-357-3030 about Associates tours.

John Clayton Wildflower Sale - Saturday-Sunday, May 6-7 & 13-14; Saturday hours 9 a.m.-3 p.m. & Sunday noon-3 p.m. At the Virginia Living Museum, 524 J. Clyde Morris Blvd., Newport News; rain or shine. Call 757-595-1900.

Two C&O Canal tours - Sunday May 7, 10 a.m.-noon & 1-3 p.m. Marion Lobstein will conduct two tours along the C&O Canal. Call 202-357-3030 for information on Associates tours.

Gloucester farm walk - Saturday May, 9 a.m. See mountain laurel, New Jersey tea, persimmon, swamp dogwoods, deciduous holly, *Viburnum nudum*, skullcaps, swamp iris and orchids. Contact Mary Hyde Berg (John Clayton) 804-693-3568 to register.

PWWS Plant Sale - Saturday May 13, 9 a.m.-noon at Bethel Lutheran Church at Sudley Road and Plantation Lane in Manassas. Call Nancy Arrington at 703-368-8431 for information.

Dragon Run canoe trip - Saturday May 13; Friends of Dragon Run Trash'n Trip. Contact David Clements 804-693-4448. Highway clean up followed by canoe trip. See March 18.

Great Falls Park, Virginia Wildflower Walk - Sunday May 21, 10 a.m.-12:30 p.m. Walks led by Marion Lobstein. Call 703-536-7150 for reservations or if weather is questionable.

Your garden's flowers: In consideration of why they bloom

I will admit that I love flowers. I also love gardening. I am not the most proficient or the neatest of gardeners, and I have a taste for the less than manicured bed.

Why do most of us garden? I think there is a combination of an appreciation for the plants themselves and their attributes of beauty such as foliage, shape, stem color and, of course, their flowers. We wish to surround ourselves with the beauty of plants. We do so by, in a sense, playing God on our little acre (or 1/3 of an acre in my case). This is not altogether bad. But any time we pretend to be omnipotent, a little bit of humility is a good thing.

There are two aspects of our obsession with flowers that we have to think about: 1) do they bloom just for us, and 2) do the plants in our gardens exist in a vacuum separate from the surrounding environment? The answer to both questions is no.

Botanical art classes offered

Artist and illustrator Merri Nelson will be instructing a series of botanical art classes at the State Arboretum. Botanical field sketching will be taught during two Saturday sessions April 8 and 15 from 9:30 a.m. to 3 p.m. These outdoor classes, which are open to all skill levels, offer students the opportunity to draw and sharpen their observational skills from the plants at Blandy. The class is \$65 for Friends of the State Arboretum and \$78 for non-members.

A botanical watercolor class will be taught June 13, 15, 20 and 22 from 9:30 a.m. to 3 p.m. In this introductory course, students with basic drawing skills will learn watercolor basics while working from live flowers. Cost is \$125 for FOSA members, \$150 for others.

Merri has exhibited her work in one-person shows at the U.S. Botanic Garden, National Wildlife Federation and the U.S. Arboretum. She has also done work for VNPS, some of which can be seen in the new brochure on preserving our natural landscape. Call 540-837-1758, ext. 21.

The flowering part of a plant contains the sexual reproductive organs. Sexual reproduction allows for variation which helps plants fit in their environment and promotes the long-term survival of the species. Many types of plants reproduce sexually. Angiosperms, or plants which have a covered seed and often have showy flowers, appear in fossil records some 140 million years ago. There is no coincidence in the fact that the explosion of flowering plants about 100 million years ago corresponds closely with the rise of many of the colonial insects such as ants and bees. The basic fact is that the whole reason for producing those physiologically expensive showy flowers is to attract pollinators which will greatly enhance the plants' chances of successfully reproducing.

So there you have it. As much as we may appreciate flowering plants and arrange them in our yard to admire their beauty, they do not flower for us; they flower for the lowly insects. What's more, when the plant goes to seed, its seed form is often designed to attract animals to eat it, thus increasing the chances that the seeds will be dispersed to favorable habitats.

These facts lead to the answer of the second question: plants in our gardens do interact with their surrounding ecosystem to a very high degree. They provide structure both above and below the soil. They provide cover. And they provide food in their stems, foliage, flowers and seeds. If soil is an ecosystem's foundation, plants are the backbone.

Everything we do in our yards

Spring wildflower video available

Nearly one hundred species of spring wildflowers are covered in the exciting video, "Spring Wildflowers of the Mid-Atlantic Region," with information on identification of these common spring wildflowers as well as information on medicinal and edible uses, life cycles, conservation, and plants to be avoided (such as poison ivy!) The co-authors are Marion Lobstein, John DeMary (teacher and naturalist in residence at Smithsonian Naturalist Center), and Suzanne Lohr (biology and chemistry teacher at Loudoun Valley

High School, Purcellville, Virginia). This has been published by Botanical Views, LLC (a company formed by Lobstein, DeMary, and Lohr). The price is \$19.95 + \$.90 Virginia state sales tax (if ordering by mail add \$3 p&h). To order your copy of this exciting new video, call Marion at 703-536-7150 or write Botanical Views, LLC, P.O. Box 2756 Purcellville, VA 20134. This video is a production of CDR Communications. Marion's e-mail address is mblobst@mnsinc.com; her webpage is <http://www.mnsinc.com/mblobst>.

has an effect. Because areas around towns and cities are made up of many small lots, the plants in those lots make up the structure for the local ecosystem. That is why it is so important to consider what we plant.

I have felt honored this winter with the daily visits to my yard by yellow-rumped warblers and at least three species of sparrows. I have no bird feeders; instead, they come to forage on and around my plants. The cedars behind my house which once formed a farm fence line provide a nightly roost for many bird species and gray squirrels. The hummingbird moths that come each summer to drink nectar are amazing to watch. The importance of this backyard habitat in a time when almost every ecosystem and habitat in North America has been altered or fragmented cannot be underestimated.

As we labor in our gardens and walk in the stream valleys this spring we need to remember that although we appreciate the beauty of the flowers, they do not bloom for us. The plants are trying to complete their reproductive cycles and we are merely bystanders to the interactions between the plants and their pollinators, seed dispersers and their predators. However, as humans we shape our local environment to suite our desires. The choices we make can determine whether a species survives or goes locally extinct. So I urge you this year to fully enjoy the flora, but to also keep the fauna in mind while you dig.

Charles Smith, VNPS Membership Chair

VNPS connects with The Orion Society as organizational member

At a recent VNPS Board meeting in Gloucester, the board voted to become an organizational member of The Orion Society, and, by so doing, connected our group to another dynamic one working to promote ecological stewardship at the community level. As perks of our membership in Orion, we will be able to reprint articles from that organization's publications in our *Bulletin*, and The Orion Society will list our contact information and information about VNPS events on its website.

Although its name suggests an astronomical focus, The Orion Society's mission relates not to astronomy but to environmental ethics, working for nature in community, and promoting nature literacy. It was founded in 1991 and now has 7,500 members, but I had never heard of The Orion Society until last summer when Nicky Staunton sent me a notice about one of its meetings which was to be held at the National Conservation Training Center in Shepherdstown, West Virginia. The list of group leaders, readers and participants had some of my favorite nature writers and environmental activists including Wendell Berry, Terry Tempest Williams, Rick Bass, Barry Lopez, and Robert Michael Pyle. Of interest to me, too, were topics like "Place-based Education" and "Tools for Success: How to Win Environmental Victories."

I attended only two days of the four-day conference on "Working for Nature in Community," but was impressed with the organization's focus. What it does best, I think, is to look at ecological problems from a systems approach rather than a "museum" approach—looking at how to cure the problems that lead to habitat destruction rather than trying to protect specific plants, for example. The Orion Society's goals are:

1) To heal the fractured relationship between people and nature by undertaking educational programs and publications that integrate all aspects of the relationship; the physically immediate, the analytical and scientific, the inspirational and creative.

2) To support changes in ethics and action at the local level that will offer genuine solutions to the global environmental crisis.

3) To cultivate a generation of citizen-leaders whose wisdom is grounded in and guided by nature literacy.

In the sessions I attended at the June conference, I found examples of people and organizations across the country succeeding in implementing those goals and doing so in ways I'd never considered. From a California educator, for example, I learned that some school systems, aware that natural history studies and place-based education were suf-

fering as a result of time spent preparing for state-performance tests, had begun to pay science teachers as they do sports coaches to stay after school in order to supervise ("coach") nature studies. And from *Orion Afield*, one of The Orion Society's publications, I have learned about successful efforts to create eco-villages in Tennessee. The Orion Society's focus is broad—attempting to integrate art, activism, science, and spirituality, but I find the approach both refreshing and invigorating.

As part of VNPS's membership in The Orion Society, we will be receiving a subscription to the society's publications *Orion* and *Orion Afield*, and I invite you to look at these magazines at Blandy. In addition, if you decide to join The Orion Society yourself, VNPS will receive \$10 of your \$30 membership fee (which also provides you subscriptions to *Orion* and *Orion Afield*). A brochure describing The Orion Society and its mission is included in this *Bulletin*.

As a result of my visit to The Orion Society meeting in West Virginia, I'd also highly recommend The National Conservation Training Center in Shepherdstown, run by the U. S. Fish and Wildlife Service. For being so close to D.C. (about 1 hour), its setting is amazingly pastoral, and the facilities are comfortable-to-luxurious. Call Thelma Flynn 304-876-7228 about scheduling meetings there.

Nancy Hugo, Publicity Chair

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$15 first year (\$20 subsequent years)

___ Family \$30 ___ Student \$15

___ Patron \$50 ___ Associate (groups) \$40*

___ Sustaining \$100 ___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

I wish to make an additional contribution to ___ VNPS or _____ Chapter in the amount of ___ \$10 ___ \$25 ___ \$50 ___ \$100 ___ \$(Other) _____

___ Check if you do not wish your name to be exchanged with similar organizations ___ Check if you do not wish to be listed in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

The *Bulletin*

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Marie F. Minor, President
Nancy Sorrells, Editor

Original material contained in the *Bulletin* may be reprinted, provided credit is given to the author, if named. Readers are invited to send news items or original articles for the editor's consideration. Items should be typed and mailed to: Editor, Rt. 2, Box 726, Greenville, VA 24440, or e-mailed to: lotswife@rica.net
The deadline for the next issue is April 1



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places



Annual Meeting

It's not too late - sign up now for the Annual Meeting, June 2-4 in Roanoke. This gathering, hosted by the Blue Ridge Wildflower Society, offers a spectacular array of activities and two popular evening speakers, Chris Bolgiano and Leonard Adkins.

Catawba rhododendron should be at its peak bloom on the visit to Peaks of Otter. Natural Heritage Botanist Paul Clarke will lead a Saturday hike to Pedlar Hills and a Sunday hike to Grassy Hill, two fairly new Natural Heritage areas. Hardy hikers on Saturday might try the Cascades trek and be rewarded by seeing one of Virginia's highest waterfalls. The trip to Falls Ridge Nature Conservancy Area offers a look at a unique geological formation called travertine, and several natives like Addison's leather flower and goldenseal. For information, check out the VNPS website or call Cindy Sandberg at 540-977-0868.

It's official: Purple loosestrife is a noxious weed in Virginia

Listing purple loosestrife as a noxious weed in Virginia is a monumental landmark event for members of the Virginia Native Plant Society. We express our sincere appreciation to Senator John Watkins (10th District) and to each of our Virginia legislators who voted in support of SB-162 thereby allowing it to move forward for the signature of Governor Gilmore on April 4.

Protection of the natural habitat and our native plants is an important part of the mission of VNPS. The

Invasive Alien Plant educational efforts with Virginia Department of Conservation and Recreation Natural Heritage Program have emphasized the danger of *Lythrum salicaria* to our natural wetlands from the beginning. Listing it as a noxious weed is another step in controlling it in Virginia.

A full report will be made in the next issue of the *Bulletin* following completion of this legislation. Also see related story on page 9.
Nicky Staunton, VNPS Conservation Chair

Virginia SB-162

Senator John Watkins of Virginia's 10th District introduced SB-162 as follows in summary:

Summary as passed:

Noxious weeds. Declares the purple loosestrife, and its hybrids and cultivars, a noxious weed and requires the Commissioner and the Board of Agriculture and Consumer Services to regulate the transport and sale of this weed under the Noxious Weed Law.

The bill was signed by the Speaker of the House and President of the Senate on March 24, 2000 and by Governor Gilmore on April 4, 2000. Effective July 1, 2000.

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From the President

Spring has come with surprising speed or so it seems. So many wildflowers are now blooming. It makes one think of the fun that we will have at the Annual Meeting in the Blue Ridge Mountains. The Blue Ridge Wildflower Society has developed an exciting agenda for the attendees. Most notable are the wonderful walks which the chapter has set up. Want to see unusual plants? Sign up for the walks in the shale barrens. Want to see birds and native plants? Sign up for the Woodpecker Ridge Walk. During the first weekend of June when the meeting will be held, there will be so many wildflowers blooming, you will want to bring your camera and lots of film. In that neck of the woods are many species of rhododendrons and they will be in bloom along with mountain laurel. Also, the temperatures are still moderate so that walking outdoors is comfortable. June also presents agreeable weather -- no need to concern yourself with severe conditions. The Sunday walks are all in the morning, and are conveniently scheduled so as to be on your way back home. So, you can get in another chance to photograph or see that wonderful wildflower which you might have missed on the other walks. And don't forget that you will meet many other members who have so much in common with you! It is almost like a family reunion! Lest I forget to remind you, there will be many tempting items on sale -- maybe some of them will be of use on the walks. But the best mementos of the Annual Meeting 2000 will be the beautiful photos that you will take of the plants that you see and the friendships you make through your mutual interest in Virginia's native plants.

Your President, Marie F. Minor

Sturdy oak tree planted to honor Ted Scott's VNPS work

Ted Scott was honored by friends gathered at The Virginia State Arboretum in Boyce, Virginia on Friday, April 7 with a gift of a *Quercus alba* planted in his honor on the Nancy Larrick Native Plant Trail.

A perfect spring day set the stage for about 40 friends to join in the dedication of Ted's tree which is identified with the traditional Blandy metal sign inscribed:

***Quercus alba* dedicated to honor Theodore G. Scott, Jr. in 2000 for years of conserving native plant habitats, given by friends in the Virginia Native Plant Society.**

Following a welcome by Nicky Staunton, VNPS Conservation Chair, and introductions, Blandy Curator Dr. David Carr delivered information about white oaks, their sturdiness, long life, and benefit to wildlife and plant communities and to mankind. He emphasized how well the tree matches Ted's traits. The dedication by Mary Painter, founder of VNPS, highlighted Ted's successful career with the Massachusetts Audubon Society and with the Piedmont Environmental Council (PEC).

While with PEC, Ted's efforts curtailed mining of uranium from Madison County. Georgia Herbert of PEC was present for the ceremony.

In 1991, Ted became VNPS Conservation Chair and initiated the invasive alien plant education program which, from the beginning, focused on purple loosestrife. Over the next nine years, the Virginia DCR-Natural Heritage Program became partners with VNPS. Ted and Caren Caljown created a list of the most offensive alien invasive plants in Virginia. The program was enlarged with the publication of fact sheets about the top 30 non-indigenous invasive plants.

His next project was accomplished by bringing together a group of representatives of state agencies, landscape architects, botanical gardens, arboreta and nurserymen to establish recommended native plants for landscaping and restoration of natural areas. The project followed a request from members regarding "what native plants should be used to replace the invasive alien plants."

Tom Smith, Director of DCR's Natural Heritage Program, presented a handsome plaque honoring



Quercus alba
white oak
Illustration by
Nicky Staunton

Ted for his decade of dedicated work with DCR on the programs involving invasive alien plants. The wooden plaque is shaped like the state of Virginia with the appreciative words engraved on the attached metal surface.

Mary and friends also called attention to many of Ted's other skills such as his photography, educational programs, field trips to the Bruce Peninsula in Canada, horticultural skills and extensive knowledge. (See *Tree dedication*, page 6)

Virginia's pioneering botanist comes to life on the Net

Slowly an image downloads onto my monitor; line by line the screen fills to reveal a high resolution image of a herbarium specimen. Impressive enough as the technology is that delivers this image, it is overshadowed by the actual image. Before me is the more than 250-year-old specimen of *Cornus florida* L. prepared by colonial botanist, John Clayton (1694-1773). It was shipped across the Atlantic from Virginia in the early part of the 18th century where it ended up with Gronovius at the University of Leiden, The Netherlands. The specimen, now part of the Natural History Museum in London, comes home to Virginia via the Internet.

As part of the British Natural History Museum's *Linnaean Plant Typification Project*, 710 Clayton herbarium sheets were digitized on a large format camera and fed into a computer to create the John Clayton Herbarium database. These images are now accessible through the home page of the Natural History Museum (NHM) in London. The herbarium specimens prepared by Clayton of Gloucester County, Virginia were among the first North American botanical specimens to reach Europe. Received by German-born botanist,

J.F. Gronovius (1690-1762), with some passing through the hands of the naturalist/painter, Mark Catesby (1679?-1749) along the way, the specimens eventually came to be studied by none other than Carolus Linnaeus (1707-1778) who relied heavily on them when preparing his landmark work, *Species Plantarum* in 1753. *Species Plantarum* introduced the standardized binomial nomenclature that is the basis of the classification system we know and use today. Many of the scientific names of our native flora date from this period and specifically these Clayton Herbarium specimens. It is quite something to think that as I download this image of *Cornus florida* L., dogwood, I am looking at the very herbarium specimen that Gronovius and Linnaeus looked at when naming this plant, a plant so familiar, so ubiquitous to us here in Virginia where it is the state flower. Momentarily, I am transported back in time and feel a sense of excitement, looking at this plant, like an 18th-century European glimpsing a never-before-seen species from the New World.

Renewed interest in the Clayton Herbarium arose after a group of 30 plates were exhibited in this country in 1993, traveling to James Madison

University, Colonial Williamsburg and the Chicago Field Museum. From this interest came the concept of a database that would bring together all of the Natural History Museum's Clayton specimens. These herbarium specimens, so significant in natural history, have long been the object of study and now via the Internet are accessible to an even wider audience. In corresponding with the NHM, I am told that the primary users of the database are academics but the site has also generated considerable interest among a wider audience of people just interested in American flora and history. This site was researched by Virginia Native Plant Society and John Clayton Chapter member, Don McKelvey, who brought it to the attention of local VNPS members. John Clayton has long been something of a legend for local VNPS members for whom they have named their chapter. He is the subject of the book *The Great Forest, John Clayton and Flora* 1990 written by VNPS member, Harriet Frye, who has done extensive research on Clayton. I would encourage everyone to visit and reconnect with a portion of our natural history heritage.

Michael Andrew Sawyer, John Clayton Chapter

www.nhm.ac.uk/botany/clayton/

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When first logging on to the John Clayton Herbarium Database you will find several options including topics such as history about John Clayton and details about the database including how the herbarium images were digitized. To view the specimens, however, you

will have to go to the "Search the Database" option. Once accessed, you will be presented with a form allowing you several ways to search the database. This could be done from a knowledge of the original Clayton specimen numbers or from page numbers of Gronovius' book

Flora Virginica based on Clayton's work. I would suggest accessing the images by submitting the "Current genus" name of the species you would like to view. I have pulled up not only *Cornus florida* but *Claytonia virginica*, *Pinus taeda*, (See Clayton herbarium, page 8)

A fluke or a trend?

Global warming may be a factor in early blooming

We are having more "spring" these days, but allergy sufferers may be enjoying it less, as such wind-pollinated species as American elm (*Ulmus americana*) and common alder (*Alnus serrulata*) are blooming and shedding their pollen earlier and earlier. The famed cherry blossoms in Washington, D.C., reached peak bloom on March 20 this year, the second earliest date on record, and spring in 2000 is shaping up to be perhaps the earliest ever documented. Is this a fluke or a trend?

In a just-concluded study, I and my Smithsonian colleagues Mones Abu-Asab, Paul Peterson and Sylvia Orli have shown that 89 of 100 common species in the Washington area are beginning to flower an average of 4.5 days earlier today than they did in 1970. This advance in flowering is significantly correlated with the long-term increase in average minimum (nighttime) temperature in the area, as documented by NOAA. The details of the study will soon be published in a research journal. I have been accumulating first-flowering dates of native, naturalized, and cultivated plants since

1970. For analysis, we selected the 100 with the most years of observations (19 or more) from among the 650 species of native and naturalized species on record. Data from the National Park Service for the two prominent cherry blossom species (Yoshino cherry, *Prunus x yedoensis*; Kwanzan cherry, *P. serrulata*) were substituted for two of the 100 native and naturalized species.

global warming. Significant advances in blooming range from 3.2 days for Dutchman's-breeches (*Dicentra cucullaria*) to 46 days for false strawberry (*Duchesnea indica*). Most of the species have advanced an average of about a week, including the two cherry blossom species. Some notable species with greater advances are columbine (*Aquilegia canadensis*), 18 days; Jack-in-the-pul-

"In a just-concluded study...89 of 100 common species in the Washington area are beginning to flower an average of 4.5 days earlier today than they did in 1970."

The results are striking. The increasing temperature over the 30 years seems to be part of the global warming trend, and the earlier-flowering trend is consistent with what we know about the effects of

pit (*Arisaema triphyllum*), 11 days; redbud (*Cercis canadensis*), 9 days; cranesbill (*Geranium maculatum*), 11 days; and Virginia bluebells (*Mertensia virginica*), 17 days.

Eleven species actually flowered later, including sweet-cicely (*Osmorhiza claytonii*), 3.1 days, and Japanese honeysuckle (*Lonicera japonica*), 10 days. Research is needed to understand what is causing this counter trend.

More than 125 colleagues and friends have contributed observations to the database over the years. Several have made enormous contributions, and topping the list is Botanist Aaron Goldberg, a Research Associate in the Department of Botany in the Smithsonian's National Museum of Natural History, where the study has been conducted. Observations were made over an area with about a 25-mile radius from Washington. Orli has been responsible for creating and maintaining the database in recent (See *Early flowering*, page 10)

Progress made on Flora of Virginia project

Members of a Virginia Academy of Science (VAS) Botany Section Subcommittee were charged at the 1999 Annual Meeting of VAS to investigate the feasibility of producing a Guide to the Flora of Virginia. Since that time, progress has been made by this subcommittee. VAS had doubled funding for the Flora Committee for this fiscal year to support the startup of this project and several groups and individuals have expressed enthusiastic support. Other potential supporters who may become involved in its development are being contacted and plans for a fund-raising campaign to support the project are in the initial stages.

VNPS members are encouraged to contact members of the subcommittee to share ideas and comments

regarding this project. Members of this subcommittee are Marion Lobstein (mblobst@mnsinc.com), Dr. Rex Baird (jrb@wise.virginia.edu), Dr. Jay Stipes (treedr@mail.vt.edu) and Dr. Michael Renfroe (renfromh@jmu.edu). This subcommittee is working with the Virginia Flora Committee of VAS to move this project forward. Marion, Botany Chair of the Prince William chapter of VNPS and Treasurer of VAS, has agreed to serve as the primary contact person. She may be reached by phone at 703-536-7150 (as well as at the e-mail address given above), if you have ideas and/or suggestions regarding this project. Marion plans to attend the upcoming VNPS Annual Meeting and will be available to discuss the project.

Wildflower Events

Audubon Naturalist Society Nature Fair - Sunday May 7. Plant sales, demonstrations, lectures in Chevy Chase, Maryland. For information Sarah Jane Rodman 301-652-9188.

Wetland Restoration at Conquest Beach on the Eastern Shore - Saturday May 13, 10 a.m.-1 p.m. Chesapeake Bay Foundation program in Centreville, Md. For information contact Marcy Damon at mdamon@cbf.org or 410-268-8816.

17th Annual Spring Wildflower Symposium - Friday-Sunday May 12-14. Guided hikes, lectures, workshops in Wintergreen, Virginia. For information contact Liz Salas 804-325-8172.

Virginia State Arboretum Garden Fair - Saturday-Sunday, May 13-14. Plant sales and more at Boyce, Virginia. For information 540-837-1758.

Bluets and Buttercups Walk - Saturday May 13. Adult wildflower walk at Scotts Run Nature Preserve.

Call Riverbend Park, 703-759-9018. Free, reservations required.

Green Spring Gardens Park Garden Days - Saturday May 20. Plant sale in Alexandria, Virginia. For information 703-642-5173.

BaySavers Appreciation Day Picnic and Awards - Saturday, May 20, 11 a.m. Quiet Waters Park, Annapolis, Md. Families are welcome. For information, contact Heather Tuckfield at htuckfield@cbf.org or 410-268-8816.

Native Plants in the Landscape Conference - Thursday-Saturday, June 8-10. Conference, field trips, plant sales at Millersville University, Millersville, Pennsylvania. For a brochure contact 717-872-3030.

Blue Ridge Garden Festival - Saturday-Sunday, June 10-11 at Virginia's Explore Park (BR Parkway MP 115) near Roanoke. Lectures, display gardens, marketplace, children's activities. 800-842-9163.

The 2000 Cullowhee Conference - Wednesday-Saturday, July 19-22. Programs, field trips, plant and book sales at Western Carolina University, Cullowhee, North Carolina. For brochure contact 1-800-WCU-4-YOU.

Irvine Natural Science Center Native Plant Seminar - Saturday, August 26 - Programs, plant and book sales at St. Timothy's School in Stevenson, Maryland. For information 410-484-2413.

Green Spring Gardens Park Garden Days - Saturday September 23. Plant sale in Alexandria, Virginia. For information 703-642-5173.



*Pieris
floribunda*
mountain
fetterbush
Illustration by
Nicky Staunton

Governor's summer program encourages youth to manage natural resources

RICHMOND - Governor Jim Gilmore recently announced the establishment of the Governor's Academy for Environmental Stewardship, a new summer program to prepare young people for managing Virginia's natural resources in the future. The program is a key piece of the Governor's environmental education initiative, Virginia Naturally 2000.

The program will be held for two one-week sessions July 16-22 and August 12-19 at Cove Ridge Center, Natural Tunnel State Park in southwestern Virginia.

"Virginia Naturally 2000 and the Governor's Academy for Environmental Stewardship will encourage and develop the best of the next generation to become environmental leaders and help protect the Commonwealth's natural resources for years to come," said Governor Gilmore. "Education is the key to excellence in environmental stewardship." Thirty-two students interested in natural resource careers will

be selected from the eight regional school districts in Virginia.

Selection will be based on academics, recommendations and an expressed interest in natural resources. Public, private and home-schooled students are encouraged to apply. Students should be sophomores rising to juniors in high school in the fall of 2000. Applications are available from school guidance departments or may be downloaded from the Virginia Department of Conservation and Recreation's web site. (www.state.va.us/~dcr/govacad.htm)

Natural resource professionals will instruct students in field studies and hands-on activities in forestry, fish and wildlife management, watershed management, water quality, threatened and endangered species, and geology. Students will interact with people who work for private industry, conservation organizations, and government.

"The goal of Virginia Naturally

2000 is to foster an ethic of environmental stewardship," said Secretary of Natural Resources John Paul Woodley Jr. "The Governor's Academy is one way we will reach the future leaders and caretakers of Virginia's natural resources."

Virginia Naturally 2000 provides tools to aid all Virginians in developing scientific and economic knowledge to make informed decisions about the best use of our natural and historic resources. In addition to the Governor's Academy, there will be an environmental education web site, www.VaNaturally.com that will become available soon, recognition of exemplary efforts by businesses, schools, and local governments, and leadership seminars for both youth and adult audiences.

For more information about the Governor's Academy for Environmental Stewardship, contact the Virginia Department of Conservation and Recreation toll free at 1-877-42WATER.

False Cape foray produced memories of flora, fauna and landscape

Profuse blueberry blooms. Sand and earthstars. Bright yellow Carolina jessamine flowers. Mystery *Bartonia* sp. Big black feral boar. Trumpeter swan floating on backwater. Stinging nettle frittata. Sassafras blossom rice. Chickweed and dandelion salad with redbud blooms and tiny pineshoots. Homemade lemon verbena cordial over ice cream. A moonlight walk on the dunes to enjoy their luminescence. Two courting water moccasins. Rafts of coots. Yaupon tea.

These are just a few of the multitudinous memories of the first VNPS foray led by Vickie Shufer (President of the South Hampton Roads Chapter), a forager who leads educational trips to this remote, isolated shoreline between the Atlantic Ocean and Back Bay National Wildlife Refuge, south of Sandbridge, Virginia. Usually a birders' destination, our weekend was cold and windy with few but the boldest warblers and sparrows. The osprey were busy fishing outside Wash Education Center, our dormitory-style home away from home.

Live oaks partially buried under sand, exposed branches covered with lichens. Spanish moss on hollies in the cemetery. *Smilax laurifolia* with new gray-green berries. Mistletoe within reach. Pelicans cruising the Atlantic shore. Our memories continue.



Geastraceae, earthstar
Illustration by Nicky Staunton

We hope to reserve the Wash Education Center for another trip in October. Our group came from Northern Virginia and Roanoke as well as more local areas. If you would like to share the adventure at False Cape in the autumn, contact Vickie Shufer (wildfood@infi.net or 757-421-3929) or Nicky Staunton (staunton@erols.com or 703-368-9803)

(The minute plant tentatively identified as *Bartonia verna* was described in *The Manual of the Vascular Flora of the Carolinas*. If it is confirmed as that plant, it has not yet been listed in our *Atlas of the Virginia Flora III*. These finds always enrich our trips!)
Nicky Staunton, VNPS Conservation Chair

Virginia wetland bills passed

All of our hard work has paid off! Virginia Governor Jim Gilmore acted on both of our Nontidal Wetlands Restoration Bills, House Bill 1170 and Senate Bill 648. He attached a small amendment that won't substantially affect the legislation's goals.

Your hard work resulted in finally placing Virginia on an even playing field with Maryland and Pennsylvania, which enacted nontidal wetland protection programs over a decade ago.

Again, thank you for your willingness to take personal action on behalf of this historic legislation. Your active participation and support make this a reality!



Phoradendron serotinum
mistletoe
Illustration by
Nicky Staunton

•Tree dedication

(Continued from page 2)

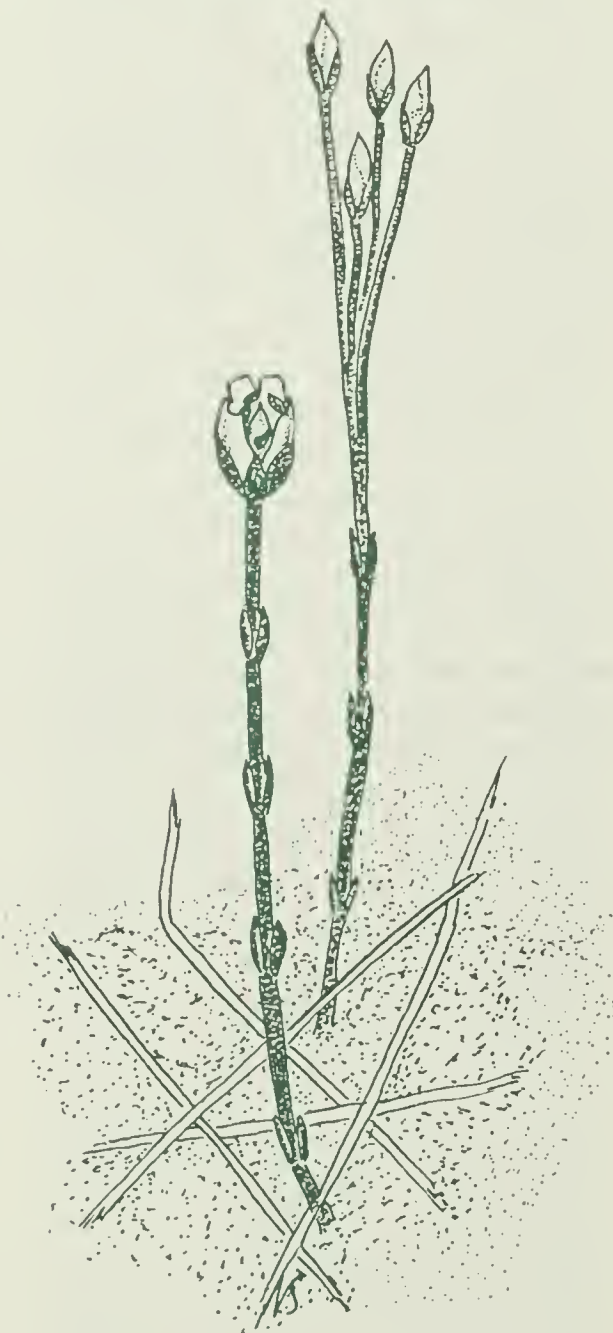
edge about plants. Carol Gardner, the president of Ted's VNPS Shenandoah Chapter, was present along with Jody Lyons, president of the Piedmont Chapter and Marie Minor, VNPS president.

The program concluded with the poem, "Ode to Champions," written by Tom Krause. The final verse of the poem is as follows:

*So here's to the champions —
To all their great deeds.
They follow their hearts
And become winners indeed.*

A jovial time was enjoyed at a luncheon in the Blandy library before everyone departed for home, full of warm appreciation for the man just honored for championing Virginia's native plants, Theodore Gordon Scott Jr.

Nicky Staunton, VNPS Conservation Chair



Bartonia verna
Illustration by Nicky Staunton

Invasive natives?

Plan your native plant communities carefully



Verbesina alternifolia
Wingstem
Illustration by
Nicky Staunton

VNPS members will like *woodland garden publication*

VNPS members who enjoy gardening with native flora will want to subscribe to Sigrid Thomas' and Wendy Ely's quality publication, *The Woodland Garden*. This fact-filled publication is published quarterly from Potomac, Maryland and focuses on flora subjects of the mid-Atlantic and southeastern regions. Examples of articles from the Winter 2000 issue include a feature on celandine poppy, a nice article (complete with a layout sketch) on making a shady entrance, and several book reviews. The articles are well-written and offer practical tips for the gardener with a desire to get dirty.

One year's subscription is \$15; a two-year subscription is \$25. To subscribe send a check and your name and address to: The Woodland Garden, 9801 Sotweed Drive, Potomac, MD 20854-4719.

Nancy Sorrells, Bulletin Editor

We have all heard admonitions against using invasive alien plants in our gardens. But at the December VNPS Board meeting a discussion ensued about emphasizing again the fact that the use of all invasive plants, whether alien or native should be discouraged in our gardens or landscape projects.

Have you ever walked in an old cornfield in a river floodplain and fought your way through wingstem (*Verbesina alternifolia*) eight feet tall? Most of us have been discouraged by the onslaught of poison ivy (*Toxicodendron radicans*) on the edge of a wooded area. These plants are examples of native invasive plants.

Essentially, invasive plants are highly competitive and very successful. They out-compete other plants for access to limited nutrients, and they often thrive in poor soil. Highly invasive alien plants such as Japanese honeysuckle (*Lonicera japonica*) and purple loosestrife (*Lythrum salicaria*) can establish themselves in healthy plant communities. However, most invasive plants, whether alien or native, are not that successful. Instead, they thrive on disturbance.

Disturbance, then, is the key: wherever there are humans, there is disturbance. We are always tinkering with the landscape. Every time we clear land or turn a bed we are creating opportunity for invasive plants. Indian strawberry (*Fragaria virginiana*), common violet (*Viola sororia*), trumpet creeper vine (*Campsis radicans*) and blackberries (*Rubus* sp.) are all native plants that benefit from constant disturbance in our yards.

The main issue is whether we can control the plants that we introduce. In most cases we can. However, we have a responsibility to prevent the spread of aggressive plants whether native or alien.

Such plants simplify the ecosystem by out-competing other plants and prevent establishment of stable, diverse plant communities.

Aggressive plants readily jump the fence into a neighbor's land or a natural area. Their seeds may be spread by birds or wash downstream to establish themselves in a suitable disturbed habitat. The effect of dispersal could be the endangerment of a local plant or animal species. These unintended introductions of invasive plants progressively degrade our ecosystems.

The presence of invasive plants is usually an indication of disturbance. Limiting disturbance should be the highest priority. The second best thing conservationists can do is to try not to introduce more native or alien invasive plants into local ecosystems. One useful resource, which to my knowledge doesn't exist yet, would be a list of invasive native plants to be avoided in gardening and landscaping. In the meantime, use your observations of plants both in yards and "wild" landscapes to guide you. Ask other gardeners about plants that have entered or left their yards without invitation. You might also seek out your chapter horticulture chair and consult books for tips on plants to avoid.

In my own yard, I need to think hard about my trumpet creeper vine (an invasive native). It doesn't want to stay put where I've established it on an old tree stump. How can I keep it contained and prevent it from becoming my neighbor's headache? I am trying to be very careful about what I plant and where, and I have to remind myself that just because a plant is native doesn't mean it can't be harmful.

Charles Smith, VNPS Membership Chair

From Near and Far.....

Proposed wilderness areas need support

The Priest and Three Ridges are two proposed wilderness areas in Virginia that U.S. Congressman Virgil Goode (5th District) has been asked to sponsor.

These two mountains enrich Nelson County with their scenic beauty, rich flora and fauna, views and heritage. The strongest protection for the Priest and Three Ridges would be within the National Wilderness Preservation System. The U.S. Forest Service has recommended this course of action. The Priest and Three Ridges are currently being managed as wilderness, but they need permanent protection through Congressional designation as wilderness areas.

A comprehensive report by Elizabeth Murray, Jefferson Chapter, appeared in our January 2000 *Bulletin*, Vol. 19, No. 1. If you do not have that issue, contact Nicky Staunton (staunton@erols.com or 703-368-9803). To support the idea of introducing this bill, especially residents of the 5th District, contact Representative Goode at: U. S. House of Representatives, Washington, D.C. 20510; phone: 202-225-4711; fax: 202-225-5681; e-mail: Rep.Goode@mail.house.gov.

Land restoration manager job

Job Description: Work with the Natural Areas staff on management and research being undertaken on site and work in a consulting capacity on land management and restoration activities for clients off site. The successful applicant will have good naturalist skills (plant and animal), knowledge of the ecology of grassland and savanna ecosystems, and experience in ecological restoration and landscape design.

Responsibilities: Work as a part of the team developing monitoring protocols for restoration sites at the Wildflower Center, participate in restoration and monitoring activities, and participate in assembling that information for publication and

presentation. Coordinate consulting activities off of the Wildflower Center site, directing other Wildflower Center staff, interns, volunteers, and day labor crews in carrying out landscaping, restoration, and land management activities. Make presentations about the work being conducted at the Wildflower Center to the general public and professional groups. Build and maintain GIS databases for both on and off site projects.

Qualifications: Masters degree or equivalent experience necessary. General computer literacy and familiarity with environmental monitoring and statistics is desired. **Salary:** Commensurate with education and experience. Send resume and three letters of reference to: Dr. Steve Windhager, Lady Bird Johnson Wildflower Center, 4801 La Crosse Avenue, Austin, TX 78739, 512-292-4200. Applications accepted until position is filled.

The Lady Bird Johnson Wildflower Center (formerly the National Wildflower Research Center) is a non-profit educational organization in Austin, Texas. It was founded in 1982 to educate people about the environmental necessity, economic value, and natural beauty of native plants.

Your help sought in finding plant locations

Prince William Wildflower Society member Volker Imschweiler is asking for your help with the following question:

"In spite of some research," he writes, "I can't locate the following plants growing naturally in Prince William County or its surroundings: *Stipa avenacea*, *Sedum telephoides*, *Veratrum viride*, *Arnica acaulis*, *Krigia dandelion*. In addition, I'd like to find out if there are naturalized spots of the **biennial** *Digitalis purpurea* in Virginia. If you have any information on this, please send snail mail to: Volker Imschweiler, 5654 Neddleton Ave., Woodbridge, VA 22193. Your postage will be reimbursed."

New native azalea website

Don Hyatt, a computer science teacher at Thomas Jefferson High School for Science and Technology in northern Virginia and a member of the Potowmac Chapter, has some exciting news. He would like to share a website of interest that he has been developing on the native azaleas of the Eastern United States. It includes graphics by George McLellan, as well as slides of his own expeditions, and some exciting pictures of a newly discovered azalea species, *R. eastmanii*, that have been sent to him by Mike Creel of South Carolina.

Don is also a long-time gardener and plant enthusiast, the president of the local Potomac Valley Chapter of the American Rhododendron Society, and on the governing board of the Azalea Society of America. He is trying to combine this new site with a parallel site that will help identify the various native azalea species. There are a number of images of the VNPS 2000 Virginia Wildflower of the Year, *R. calendulaceum*, on the site as well. The URL for his site is: <http://www.tjhsst.edu/~dhyatt/azaleas/>

•Clayton herbarium

(Continued from page 3)

Osmunda claytoniana and *Trillium sessile* amongst others just by submitting the genus, so do not be daunted by the form. Once a genus is entered, *Osmunda* for example, a window will open listing the *Osmunda* species available for viewing. In this case *Osmunda claytonia* and *Osmunda regalis* are listed. Click on the Latin name of the species you would like to see and the specimen will be accessed. Once the specimen is accessed, a thumbnail of the image with a reference sheet will appear and a click on the thumbnail will then download the larger detailed herbarium image. A closer look at the images will reveal the craftsmanship with which the herbarium specimens were done. Many include original notations from the 18th century and other artistic embellishments.

Loosestrife on the loose in Fauquier County, but the cause is good

Members of the VNPS Piedmont and nearby Prince William Chapters have been keeping wary eyes on a strip of roadside near the Broad Run Post Office, in Fauquier County. There, each summer, the magenta spikes of purple loosestrife push through the more routine roadside vegetation. This undeniably attractive wildflower with definitely dangerous habits ranks among the nation's most serious exotic invasive plants. Concerned members of VNPS have often discussed strategies to persuade the Virginia Department of Transportation to undertake control measures. Now there is an unexpected turn of events.

Purple loosestrife (*Lythrum salicaria*), with its close relative, *Lythrum virgatum*, is a perennial herb introduced into the United States from Europe in the early 1800s as a medicinal herb and ornamental plant. It now grows wild in at least 42 states, with the greatest concentration in New England, the Mid-Atlantic and Great Lakes states where it often engulfs wetlands. In our region it grows best in freshwater marshes, open stream margins and alluvial floodplains, often totally replacing communities of native plants. This problem has been taken seriously by responsible land managers and conservationists. The plant has been declared a noxious

weed in a growing number of states.

Purple loosestrife has now spread into 24 Virginia counties. It continues to be sold as a garden plant although claims that the various cultivars of the plant are sterile (and therefore safe) have proved false. VNPS Conservation Chairman, Ted Scott, has appealed to the Virginia Department of Agriculture to list the plant as a noxious weed, which would ban it from trade in the state and perhaps avert the worst damage before it is too late. In backing the VNPS effort, the Virginia director of The Nature Conservancy points out that "Virginia has many outstanding freshwater marsh habitats which are very much at risk of being invaded by *Lythrum salicaria*. [The plant is] threatening not only the rare and unique plants that currently thrive there, but the numerous migratory bird, mammal and fish species which rely upon the productivity of these marshes for food and shelter."

But something is afoot here in our patch. In the summer of 1999, a puzzling array of signs appeared among the spikes of loosestrife. "Do Not Mow or Spray," they advised. Alarmed, members of VNPS sought to ascertain who was responsible for this seeming alliance with the enemy. The trail of clues led beyond the Virginia Department of Transportation,

(where resident engineer Bob Moore vowed innocence), to a small Warrenton field station of the Virginia Department of Agriculture, and the regional manager of the Office of Plant and Plant Services, Tom Finn. Tom knows a lot about purple loosestrife. His office, in cooperation with the Federal Government, has chosen the Route 55 *L. salicaria* plot as one of two sites in Virginia selected for study of purple loosestrife. In the case of purple loosestrife, biocontrol means beetles. In its native European habitats, purple loosestrife is kept under control partly by certain beetles that feed upon it heavily. No such predators exist here. After years of careful laboratory testing, the United States Department of Agriculture approved import and experimental use of the beetles to control *Lythrum*.

The Broad Run strip of *Lythrum salicaria* has thus become an insectary, a site for the raising of beetles that are predators of purple loosestrife. Finn and his co-workers have established quadrants at the site and will monitor both the beetles and their effect on the loosestrife population. It's not always fun, according to Finn who must slog through the mire littered with roadside debris. However, he has promised to share results of the work with interested VNPS members

Jocelyn Sladen, Piedmont Chapter

See the address label for your membership expiration date

VNPS Membership/Renewal Form

Name(s) _____

Address _____

City _____ State _____ Zip _____

___ Individual \$15 first year (\$20 subsequent years)

___ Family \$30 ___ Student \$15

___ Patron \$50 ___ Associate (groups) \$40*

___ Sustaining \$100 ___ Life \$500

*Please designate one person as delegate for Associate membership

To give a gift membership or join additional chapters: Enclose dues, name, address, and chapter (non-voting memberships in any other than your primary chapter are \$5)

I wish to make an additional contribution to ___ VNPS or _____ Chapter in the amount of ___ \$10 ___ \$25 ___ \$50 ___ \$100 ___ \$(Other) _____

___ Check if you do not wish your name to be exchanged with similar organizations ___ Check if you do not wish to be listed in a chapter directory

Make check payable to VNPS and mail to:

VNPS Membership Chair, Blandy Experimental Farm, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620

Membership dues are tax deductible in the amount they exceed \$5. Contributions are tax deductible in accordance with IRS regulations.

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The deadline for the next issue is July 1



Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY
Conserving wild flowers and wild places

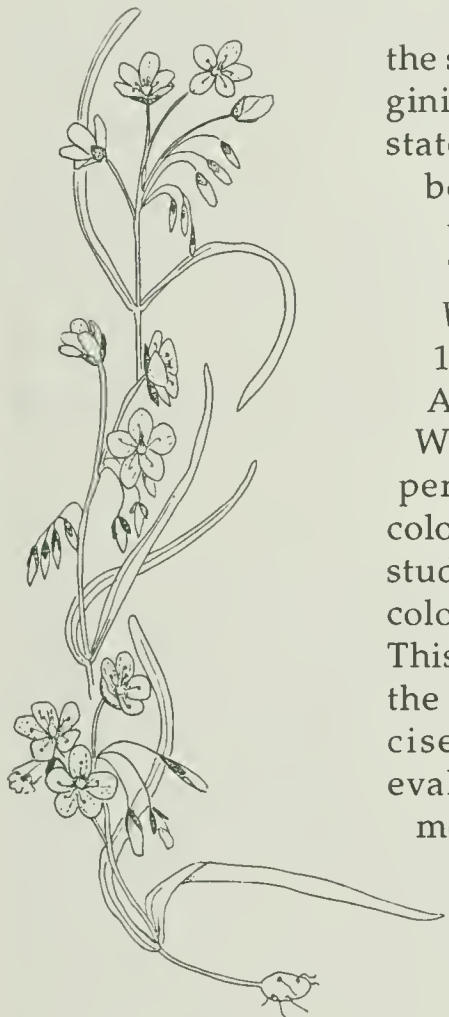
The time is right for a modern *Flora of Virginia*

"One who had not fully investigated the subject might readily assume that Virginia would have been among the first states to publish a state flora. The first book concerned with American flora was [Thomas] Harriot's *a Brief and True Report of the New Found Land of Virginia* published in London in 1588. The first drawings of North American plants were those of John White from Roanoke Island. The first permanent settlement in the American colonies was in Virginia. There were early studies of flora in the colony and the first colonial flora published was of Virginia. This early promise of a complete flora of the region has never materialized. Precisely why it has not is difficult to evaluate. There have been a number of movements toward one, and today we once again have hope."

The above paragraph is a 1977 quote from Edmund Berkeley in the *Atlas of the Virginia Flora III*. This quote is more appropriate than ever as VNPS members enter both

a new century and millennium. Exciting progress has begun toward producing a contemporary *Flora of Virginia*. The last Virginia flora (*Flora Virginica*), published in the mid-1700s, was the work of John Clayton of the Gloucester area of colonial Virginia. In the spring of 1999, the Virginia Flora Committee and Botany Section of the Virginia Academy of Science (VAS) began work toward producing a modern *Flora of Virginia*. Marion Lobstein, VAS Treasurer and Virginia Flora Committee member and Prince William Wild Flower Society Botany Chair, has served as a facilitator for these efforts. Since that time, Marion has written several articles for the VNPS *Bulletin* to update VNPS members regarding the project.

Since those articles, there have been many exciting developments. At the VNPS Annual Meeting in early June, Marion presented background on this project to the VNPS Board of Directors which voted its unanimous support. One board member stepped forward to make a pledge of her own funds toward the project (See *Celebrate*, page 3)



Reflection and resolve mark annual meeting

When driving along Interstate 64 west from Richmond, the mind wanders and one has time for quiet reflection. This would be my first VNPS Annual Meeting away from the John Clayton Chapter on the Virginia Peninsula. I particularly wanted to attend this meeting because it would give me a chance to visit a part of the state I have rarely seen and explore a region vastly different from the Coastal Plain. I had a sense of anticipation as

I drove into downtown Roanoke, a city I had often driven through but never visited. The quiet solitude of the drive was broken the minute I checked into the hotel. People had already begun to gather in the lobby and I was looking forward to seeing friends from home, as well as meeting folks from other parts of the state. I would finally have the opportunity to meet people and actually see individuals (See *Annual Meeting*, page 4)

Bulletin Inserts
• Virginia Flora questionnaire Fill out & return now!
• Wildflower license plate Order yours today!
• Blandy membership form Join the FOSA today!

From the President

Annual meeting a time for meeting old friends and new plants

I guess that this letter is a follow-up of the letter which I wrote for the May 2000 issue. In it were the reasons why you should attend the Annual Meeting which was held in Roanoke and hosted by the Blue Ridge Wildflower Society. Now I want to tell the members of the Blue Ridge Wildflower Society, especially Cindy Sandberg and Butch Kelly, what gracious hosts they were in having the Annual Meeting. It was a smoothly-run, wonderful event.

The meeting was everything that I stated it would be and more. First, greeting the friends whom I see year after year made it seem like a family reunion with lots of hugs and hellos. The auctions and sales lured some of us into denting our wallets.

*Secondly, there were no disappointing field trips; they offered many wildflowers luxuriantly growing and blooming -- great for photographs. Did you know that southwestern Virginia has the greatest number of species of plants on the continent of North America? The field trips revealed that fact to us. Never had we seen so many kinds of plants. Not being overly fond of maples, nevertheless I was impressed with the beauty of striped maple (*Acer pensylvanicum*) whose bark was green and white striped. Then having just purchased Bowman's root (*Gillenia trifoliata*), planting it, and being elated to see it bloom, I was thrilled to see patches of it blooming along the mountain slopes. It was accompanied by goatsbeard (*Aruncus dioicus*), wild hydrangea (*Hydrangea arborescens*), mountain laurel (*Kalmia latifolia*), and mountain rosebay (*Rhododendron catawbiense*) which blooms in colors from almost white to coral to deep pink sometimes all on one plant. On an overlook on the Blue Ridge Parkway not far from Peaks of Otter both plants were in full bloom.*

The only disappointment which I experienced was that I did not get to meet and greet more members. It would have been great. Since I plan on attending the Annual Meetings in the future, maybe I will get a chance to see you??? I hope so!!

Your President, Marie F. Minor

From the Board

Abstract of June 2000 VNPS Board of Directors meeting

--Karen York, the new VNPS Office Manager was introduced by John Fry.

--VNPS long-range planning Stakeholders Retreat is planned for 2001 with full membership participation either attending or through a questionnaire to be published. The board approved the recommended professional facilitator. Jessica Strother/Charles Smith are researching funding sources and possible locations.

--Piedmont Chapter President Jody Lyons gave update on plant rescue at G. Richard Thompson Wildlife Management Area due to road widening. VNPS has a letter of permission from DGIF to rescue plants for relocation, but not for sale. Stan Shetler advised everyone to be sure plants being rescued will be relocated in their proper environment. The idea of a workshop about plant rescue was suggested.

--Ted Scott, Ruth Douglas, Jim Bruce and Nicky Staunton met on April 25 with two officers of the Virginia

Nurseryman Association to discuss cooperative work with invasive alien plant control. Plan next meeting in September. Ruth Douglas (Jefferson) is teaming with Ted on the invasive alien plant work. Dr. Dave Carr, Curator at Blandy, invited VNPS to co-sponsor a seminar at Blandy on "Plant Invasion in the Forest," cost is \$25. Board agreed to co-sponsor.

--Marion Lobstein (Virginia Academy of Scientists Botany Committee) presented information about the *Flora of Virginia*. An information sheet and questionnaire were distributed. Blandy has offered space for the project. This project will take years and needs wide support. Marion asked that the VNPS Board support this project. The board unanimously voted on a resolution of support for the Flora of Virginia Project. (See questionnaire for members in this *Bulletin* about the Flora.)

--Nancy Hugo (Publicity) reported he mailed 50 press releases with slides

and photos publicizing Flame Azalea as VNPS 2000 Wildflower of the year.

--Boleyn Dale (Registry) furnished a report on a new registry site of the Buschman's property of 600 acres in Buckingham County (Jefferson).

--Jessica Strother (D-A-L) reported that Hal Wiggins is keeping a list of plants found at Crows Nest. Also reported large interest in Fredericksburg area for a chapter to form.

--Blue Ridge Wildflower Society (See *Board meeting*, page 10)

Name correction

A mistake was made in an article in the May *Bulletin* discussing a tree that has been planted in Ted Scott's honor at The Virginia State Arboretum in Boyce, Virginia. Ted wants it to be known that his middle name is Gourdin, not Gordon, and comes from his French ancestry in South Carolina.

Celebrate Virginia's rich botanical heritage by helping with Flora Project

(Continued from page 1)

and assured the support of her chapter. Marion also spoke to VNPS members attending the business meeting. Questionnaires regarding the Flora Project were given out to those VNPS members and a good percentage of these have been completed and returned. The data from VNPS members' response to this questionnaire is being compiled and analyzed to provide valuable feedback for the Flora Project. A database of names of VNPS members willing to assist in support of this project is also being compiled and will be added to the names of others who responded to the

initial questionnaire. Also at the meeting, Leo Stoltz, a PWWS member, volunteered to expand the initial questionnaire and has developed the form included in this *Bulletin*. Members are encouraged to respond quickly.

In addition to VNPS support, help for this project has been expressed by many other organizations and individuals: the Virginia Academy of Science (the Botany Section, Virginia Flora Committee, and the Executive Committee), the Virginia Botanical Associates (producers of the *Atlas of the Virginia Flora*), the State Arboretum of Virginia Board of Directors and the Director of Blandy Experimental Farm, the Director and staff

of Wintergreen Nature Foundation, the executive staff and herbarium head at Lewis Ginter Botanical Garden, the Director of Green Spring Gardens Park, and the Virginia Association for Biological Education. Also, in May, Marion met with Alan Weakley who is completing a *Flora of the Carolinas and Virginia* and will be the primary author of the *Flora of Virginia*.

The most exciting recent development to move the Flora Project forward is the identification of both a manager and a professional fundraiser for the Flora Project. Chris Ludwig of the Virginia Natural Heritage Program announced that, once funds are raised to support the manager of the Flora Project position on a full-time professional basis, he would serve in this position. Chris is one of the most respected botanists in Virginia and an excellent manager. Joslin Gallatin, immediate past president of the FOSA Board, is spearheading initial fund-raising activities for the Flora Project and, once sufficient funds are available, will continue in this position on a professional basis. During Joslin's tenure as FOSA board president, she was successful in leading efforts to gain the first-ever Virginia Legislative support for the State Arboretum of Virginia. She continues to play a crucial fund-raising role for the arboretum.

A strategic planning meeting will be held in mid-August and input from many groups and individuals will be very important in decisions made during this crucial planning stage. VNPS members are encouraged fill out the questionnaire and share ideas and comments regarding this project. Your response to the questionnaire included in this *Bulletin* will be very helpful as we work toward accomplishing the goals of the Flora Project as it moves into the fall. This is an historic opportunity to be involved in helping realize one of the main goals of VNPS – that of having a *Flora of Virginia*!

Marion will serve as the primary contact for VNPS involvement in this project. In addition to filling out the survey, you may contact her by phone 703-536-7150, fax 703-534-5713 or e-mail (mblobst@mnsinc.com). Be a part of this historic moment in the rich botanical history and heritage of Virginia!

To help you respond to the questions on the survey included as an insert in this VNPS Bulletin, here are additional explanations of some of the terms used:

Flora – a book that lists the species of vascular plants (ferns, clubmosses, horsetails, conifers, and flowering plants in our area) that are native or naturalized (introduced from other areas of the world) in a given area; usually includes plant descriptions and dichotomous keys to plant families, genera, and species (using both scientific names and common names); often has botanical illustrations of species covered

Dichotomous (identification) key – an identification tool which gives user pairs of choices with yes or no answers that will identify unknown specimen or will lead to other pairs of choices continuing to final identification of that specimen

Plant description – provides information on details of flower and vegetative (leaf, stem, and root) structure of a plant species as well as information on habitat, blooming and fruit set times, distribution, etc.

Botanical illustrations – are drawn from live or herbarium (preserved) specimens of a species and can emphasize certain characteristics important in identification; all parts of the plants can be shown in a good botanical illustration

Color photographs – typically show only the flower detail; color photographs greatly increase the price of a flora and are usually printed in too small a format in a flora to show detail

Glossary – a set of definitions of botanical terms used to describe flowers and vegetative feature parts/characteristics

Studying S.A.V. creates understanding of Bay

Ever since I came to Virginia from Arizona in 1993 I have wanted to canoe in the shallow waters of the Chesapeake Bay. When I found out about the Chesapeake Bay Foundation program and workshops to learn about recognizing and surveying underwater grasses along the Bay margins, I instantly knew that this experience would have the magic combination that I had imagined: slipping along the edges of a coastal waterway via canoe under the instruction of talented environmentalists.

I was about to learn to recognize a vital link in the preservation of the rich Chesapeake Bay ecosystem, learn a bit about canoeing with an engaging group and spend one of the most relaxing Saturdays I had experienced in quite a while. We met at 8:30 a.m. in Stafford County and carpooled to a private boat dock along Potomac Creek. Under a large oak along the bank we watched a Great Blue Heron come to perch while an underwater grasses biologist for the (See Bay, page 6)

Annual Meeting

Themes included environmental issues and a modern state flora

(Continued from page 1)

als I've known more as e-mail addresses or as names in the VNPS *Bulletin*.

The hotel ballroom set aside for VNPS was indeed humming with activity. I immediately began to see a few familiar faces and could barely say hello to someone before I would catch a glimpse of someone else whom I absolutely needed to catch up with. It would not be until the next day that I got to take in any of the displays set up in the hallway or check out any of the excellent books for sale. One display addressed the subject of a project to create a *Flora of Virginia*, the first since John Clayton's in the early 1700s. This would prove to be one theme throughout the meeting as the next evening Marion Lobstein addressed the gathering, laying out initial plans for the project. The response was one of overwhelming support as such a flora has long been awaited for Virginia. The evening seemed to have barely begun before we were soon officially greeted by our host, Cindy Sandberg, of the Blue Ridge Chapter. We took in the evening slide presentation "Wildflowers of the Appalachian Trail" by author, Leonard Adkins. Adkins has hiked the trail several times over the past few decades and has an intimate knowledge of the trail, its plants and its people. The slides were stunning and provided me, at least, with a much-needed crash course in Blue Ridge flora unfamiliar to me back in Williamsburg. This lecture nicely set the stage for the many field trips that were to take place the next day and I was soon buying Adkins' recently published book, *Wildflowers of the Appalachian Trail* as a souvenir of the weekend.

A popular trip, although I heard excellent reports from all outings, was the Shale Barrens/Roaring Run trip. Something about the concept of shale barrens sounded totally exotic to me and I was wondering what sort of plants had adapted to and were able to survive in these extreme conditions? The setting was indeed unfamiliar as we caravaned up into the mountains

to finally park on a dusty unpaved road in what can best be described as a crevice in the earth.

On either side of us the walls of exposed strata rose up sharply, revealing layers of sediment thrust skyward over the ages. Bent, compressed, twisted, broken layers of rock crumbled down, collecting in piles of dry scree at the base of the slopes.

What sort of plants would one find here? Curiously, *Dicentra eximia*, wild bleeding heart, was the first surprise of the day. Here was something I had always considered to be a woodland plant, or a plant seen more often in cultivation, rather than something hanging on the side of a dry crevice, rooted in the crack of a rock! More typical of what one would expect to find was the rugged little endemic species of *Calystegia spithamea*, shale bindweed, clinging tenaciously to the earth with its white flowers and glaucous foliage which seemed a suitable adaptation to the site. Again more expected, was the lovely yellow and pink/purple flowers of *Tephrosia virginiana*, goat's rue, a member of the pea family, which had staked a claim next to the road in the bone-dry soil. This was just to be half of the adventure as we left the shale barrens and drove a few miles away to go hike the trail following the gushing waters of Roaring Run.

Equally steep slopes rose above the rushing stream but this time they were lush and mossy, covered with fern and condensation. It was a welcome change from the open barrens as the heat of the day was rising this first weekend of June. Which was, as it turned out, a perfect time to see *Kalmia latifolia*, mountain laurel, and *Galax aphylla* in bloom. The latter being the curious mountain disjunct species that, apart from the mountainous regions of the state, appears only in deep ravines of the coastal plain. It was fascinating to see this plant growing in what certainly must be its more typical setting.

In the midst of even this verdant setting environmental pressures facing the mountains were apparent as



Calystegia spithamea, shale bindweed
Illustration by Nicky Staunton

skeletons of *Tsuga canadensis*, eastern hemlocks, devastated by the woolly adelgid, lined the stream banks. Pressures on the Appalachians would again be addressed at the lecture that evening back at the hotel and became another theme of the weekend. At Rocky Run people began to slow down after having had a full morning of hiking and plant identification. It was a time to relax and just take in the beauty of the mountains and reflect on the nature of things before heading back to the city.

That evening, after dinner at the hotel, we were treated to a slide lecture by author Chris Bolgiano on "The Appalachian Forest." Her talk captured the essence of her recent book of the same title. Bolgiano has done extensive research on the Appalachian forest, revealing a history of human interaction with the region that accounts for much of how we find it today. Issues of invasive species, habitat loss, increased development, overharvesting, including the emergence of chip mills that consume more than just the traditional timber species, (See *Themes*, page 7)

The Bruce: A place where orchids are more common than dandelions

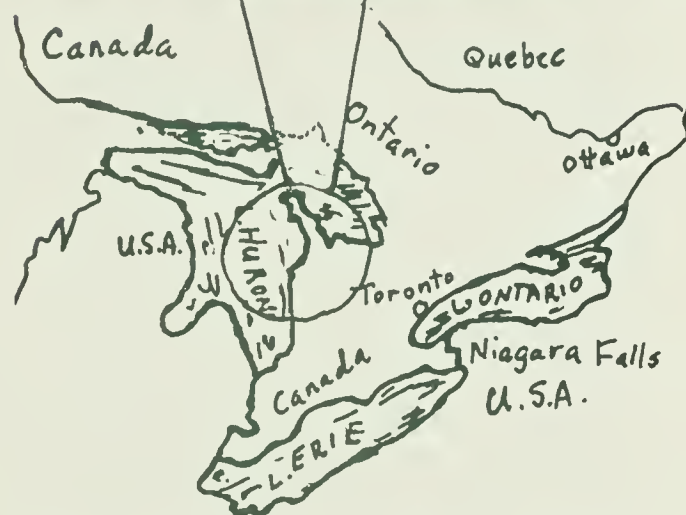
On our first full day, a misty Sunday, we car-pooled a short way to Walker's Wood. Along the way, we saw our first orchids, yellow lady-slippers (*Cypripedium calceolus*), growing in the ditch along the road. By the end of the week we had seen so many that we were joking about how boring they were—"More of them than dandelions"—but, of course, we were impressed every time we saw them and kept looking for bigger and bigger clumps.

The orchid sightings were all part of the Virginia Native Plant Society's annual trek to the Bruce. This year 13 VNPS members met at Wildwood Lodge on the west side of the Bruce Peninsula on the shore of Lake Huron from June 10-17. Our time was regulated by breakfast at 8 and dinner at 6. Nicky Staunton and Cris Fleming did an excellent job planning daily field trips to find the unusual plants.

In the woods, our first big visual impact was the fringed polygala (*P. paucifolia*), covering the ground with rose-purple "gaywings." They too appeared all week. Then, in the

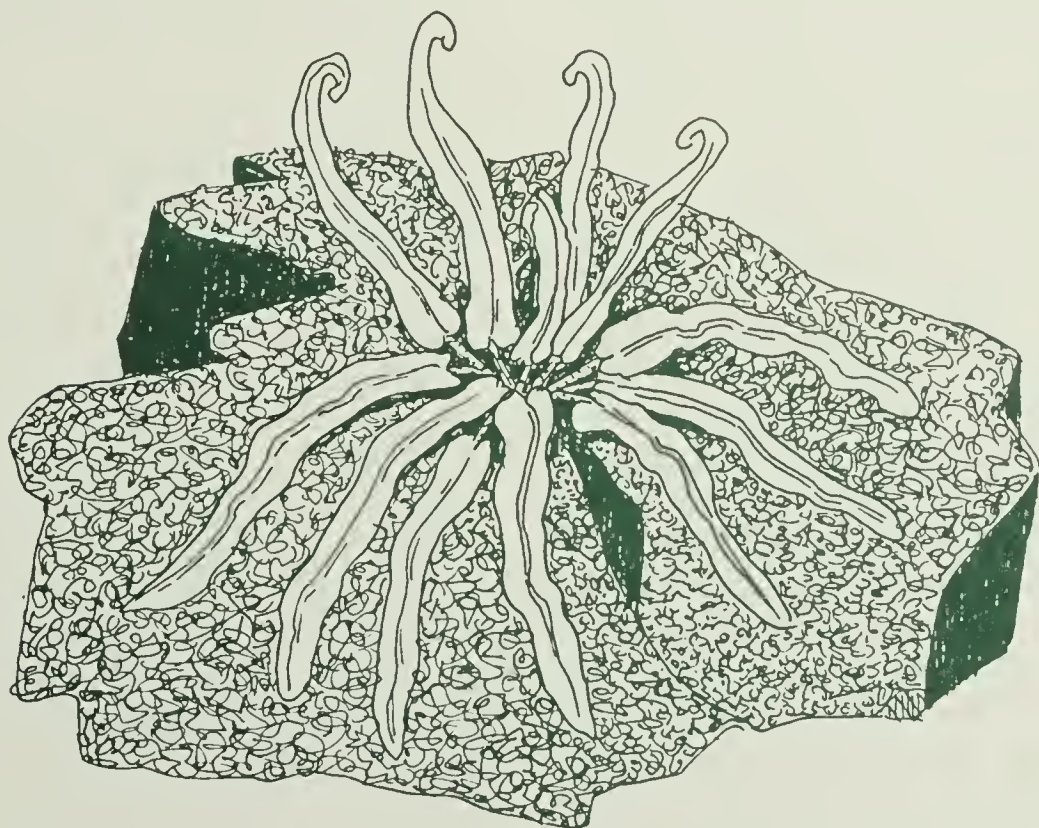
swampy areas, the carnivorous plants amazed us: pitcher plants (*Sarracenia purpurea*) with dark red flowers nodding above pitcher-like, insect-trapping leaves and sticky-leaved sundews (*Drosera rotundifolia*). We enjoyed lunch at Sauble Falls, where we saw giant carp trying to get up the stairs of the falls. On our way home, Nicky took us unerringly to the telephone pole along the road where she remembered seeing showy lady-slippers (*Cypripedium reginae*) in previous years, and they were in full bloom.

The group's *modus operandi* soon became apparent. Nicky could take us to the spot where a plant was supposed to be. Oliver Flint would scout ahead to find plants. Martha Shelkey, aided by husband Dave, would take the type of close-up pictures similar to her marvelous work at Caledon Natural Area in Virginia. Cris would help us identify plants, often working late in her cabin keying sedges, and, on the last night, determining that the rose we had been seeing was *Rosa blanda*. Richard Stromberg practiced his Newcomb keying skills,



helping to pin down species and finding weeds to add to the list. Janet Siddle, Natalie Becker, Becky Barclay, Carol and Oliver Flint, Nicky, and Cris took early morning birding trips. Janet listed 32 birds over the week, including shoveler, harrier, and snipe, and she found a killdeer nest. Entomologist Oliver kept us informed about the insect population.

With a favorable weather forecast on Monday, we drove 50 miles to Tobermory on the north tip of the peninsula. We rode a boat to Flowerpot Island to see the odd rock formations that give the island its name and, of course, to see its flora. Richard and Sybille Stromberg and the Flints set off at a fast pace to cover the whole loop trail over the top of the island while the others went more slowly, examining the plants along the way to a cave. Blooming along the rocky climb to the cave were bird's-eye primroses (*Primula mistassinica*). The only Calypso orchid (*C. bulbosa*) found was well past its prime. We saw two-leaved and naked mitrewort (*Mitella* (See *Botanizing*, page 7)



Phyllitis scolopendrium, hart's tongue fern
Illustration by Nicky Staunton

Fire helps bring native plants to life at Blandy

Visitors to Blandy on April 19 may have been a little alarmed by the smoke, but rest assured, unlike recent events in New Mexico, everything was under control. Long-time arboretum supporter Gerald Crowell and his crew from the Virginia Department of Forestry were here to put the final touches on the site preparation for the 35-acre nativegrass meadow. In a little

over two hours, thatch from last year's vegetation had been turned to ashes, the field seemingly wiped clean of the alien species that had dominated it for years.

The rebirth of the field began over the first weekend in May when the Virginia Department of Game and Inland Fisheries delivered a no-till seed drill specially designed to handle the chaffy seeds of native warm season grasses. Enduring four days of heat and humidity more typical of mid-July than early May, Arboretum Superintendent Bob Arnold pulled the drill behind his tractor, leaving in his wake millions of seeds of big and little bluestem, broomsedge, side oats gramma, Indian grass, switch grass, and 36 species of wildflowers. The thousands of parallel furrows left in the

field marked the beginning of a new era for the Virginia Native Plant Trail.

A month later, the field was slowly turning green. Among the first plants to push through the soil were two uninvited guests; the alien fescue (*Festuca*)

The reconditioning of the field is not only an attempt to extend the Native Plant Trail for our visitors, but it is also an ambitious research project. The braided trail system designed by the architecture firm of Monroe and

Crocker divides the field into 15 sections. We have varied the level of grass diversity in each of these sections in order to study the effects of

diversity on such important ecological processes as the accumulation of carbon, the prevention of invasive alien species, and maintenance of overall diversity. Jerry McGwire, a University of Virginia undergraduate and FOSA-sponsored summer fellow, will be documenting the vegetation changes in the field throughout its first summer. Mentored by Dr. Howie Epstein of the Department of Environmental Sciences, Jerry has established sampling stations within all 15 sections of the field. Jerry's data will serve as the baseline for a continuous study that should provide useful information for the Natural Resource Conservation Service and other people interested in similar projects in our region.

David Carr, Blandy

reprinted from Arbor Vitae Summer 2000

Blandy Connections

and bedstraw (*Galium verum*) that we had worked so hard to eliminate. The fescue is actually quite sparse compared to its former coverage of the field, but the bedstraw is proving to be a particularly tenacious foe, sprouting from a root system that apparently escaped the effects of our Round-up treatments. But not everything that has returned to the field is unwelcome. As we had hoped, many of the native perennials have also returned and at densities far in excess of what were formerly in the field. Most importantly, native grasses are now sprouting in abundance from the furrows. These grasses will form the foundation of the new field, and our proper management of these grasses should enable us to maintain a high diversity of native plants.

• Bay

(Continued from page 3)

Chesapeake Bay Foundation (757-622-1964), gave each of us a "SAV Groundtruthing Kit" and reviewed the grass species we might find. After reviewing canoeing basics, we paired off and launched seven canoes. Equipment needs were rakes and plant identification keys. Canoes are not even essential in many locations, since submerged aquatic vegetation can be found June to September by wading in shallow water. For 2.5 hours we paddled, raked and explored. My canoe found four of the five species identified that day: coontail (*Ceratophyllum demersum*), two species of naiad (*Najas spp.*) and hydrilla (*Hydrilla verticillata*, non-native).

The CBF offers workshops in order

to increase its network of "SAV Hunt" volunteers. I will now select one or more USGS grids provided by CBF and go out independently to ground-truth the known grass beds. Perhaps I will return annually to observe and document changes in a particular area.

SAV is sensitive to nutrient and sediment overload and is therefore an excellent barometer of Bay health. When present and thriving, underwater grasses provide essential food and habitat for diverse communities of waterfowl, fish and invertebrate animals. The data collected by the CBF is part of a database, updated annually and internet-accessible, at www.chesapeakebay.net/bayprogram/restore/sav.htm.

Carol Thompson Nelson, PWWS

Natural history weekend

Join the state's finest field scientists September 15-17 as they share their most recent findings at Virginia's Natural History Retreat Weekend presented by The Wintergreen Nature Foundation and the Virginia Museum of Natural History. The weekend is full of opportunities for beginning and experienced naturalists to learn about geology, botany, mammalogy, ornithology and much more.

The registration fee is \$95 for the entire weekend; this does not include accommodations. Patron members of The Wintergreen Nature Foundation or of The Virginia Museum of Natural History may register for \$80. Group rates may be available. Contact the Wintergreen Nature Foundation, 804-325-7451, for information.

•Botanizing and camaraderie make for memorable trip

(Continued from page 5)

diphylla and *M. nuda*) and Canada violets (*Viola canadensis*), and, on top of the loop trail, yellow violets (*V. pubescens*).

On Tuesday we took the long drive north to the bogs of Dorcas Bay. We found bearberry (*Arctostaphylos uva-ursi*) blooming with a spider-web vortex underneath, baited with a berry. While bending to look at a field chickweed (*Cerastium arvense*), Shirley Lambert spotted something more impressive—rams' head lady-slipper (*Cypripedium arietinum*). Martha Shelkey had to lie down to get its picture as we noticed many more in the area. We added linear sundew (*Drosera linearis*) and butterwort (*Pinguicula vulgaris*) to our list of carnivores, often finding them together on the same hummock with pitcher plants. We spotted a second *Polygala*, Seneca snakeroot (*P. senega*), its spike of white flowers so different from the gaywings.

Wednesday we headed north again, to the alvars, east of Dyer Bay. We accomplished our mission there, spotting the rare Roberts oak fern (*Gymnocarpium robertianum*) in a crack in the alvar pavement called a "gryke" and lakeside daisy (*Hymenoxys herbacea*) in bloom on the crust on the rocky pavement of the alvar. We also saw harebells (*Campanula rotundifolia*) in bloom.

This was our hottest day. After lunch, one group went back to the bogs. Alma Kasulaitis joined the Flints and Strombergs on a hike in Cypress Lake Park. The "turtle crossing" sign at the entrance to the park was not lying—we had to stop to let a painted turtle cross. The trail through the woods was pleasant, but we were unable to stop and admire the grottoes and natural bridge along the rocky shore because of stable flies. The group at the bog suffered from them too. On the park road we saw wood lilies (*Lilium philadelphicum*) in bloom and large clumps of yellow lady-slippers.

On Thursday we went to the east side of the peninsula. We didn't stay

long at Kemble Forest in the driving rain, but we located the famous hart's tongue fern (*Phyllitis scolopendrium*). The weather had cleared by the time we reached Bruce's Cave. There we found a lot of blue cohosh (*Caulophyllum thalictroides*) with green berries, clumps of sharp-lobed hepatica (*H. acutiloba*) and wild ginger (*Asarum canadense*), and red baneberry (*Actaea rubra*) to join the white baneberry (*A. pachypoda*) we had seen elsewhere. We accomplished our fern objective below the cave by finding walking fern (*Asplenium rhizophyllum*).

In the afternoon, the Strombergs hiked the trails around the lodge. As they neared the driveway to the lodge, they spotted a spike of pink and white flowers. They found some others as well, but couldn't find any leaves to help identify them. They hurried back to the lodge and got Nicky and the Flints to drive back with them to identify pink pyrola (*P. asarifolia*), the first time it had been seen in bloom. Then Nicky took them around the corner to a spot where they could go into the woods to see large clumps of showy lady's slippers in bloom before hurrying back to dinner.

Friday was fen day: Oliphant Fens south of the lodge and Petrel Point to the north. When Becky

Barclay got out of the car, she spotted the only grass pink orchid (*Calopogon tuberosa*) we saw in bloom. We saw tall white bog orchids (*Plantanthera* formerly *Habenaria dilatata*) blooming next to the boardwalk, but could not find the hoped-for rose pogonia (*P. ophioglossoides*). We saw a new carnivorous genus, bladderwort (*Utricularia*), blooming, but it was too far from the boardwalk to determine the species.

In the afternoon, the Flints and Strombergs hiked along the north shore of Colpoys Bay across from Bruce's Cave. Disappointingly, most of the trail was in the woods with only a few views across the bay. They added early meadow rue (*Thalictrum dioicum*), common blackberry (*Rubus alleghiensis*), and black snakeroot (*Sanicula marilandica*) to the VNPS list.

While the botanizing, birding, etc. was intense, we had a great time together right through our campfire on the last night when the full moon appeared as the last sunlight glowed orange in the west. The group identified 260 plants, 18 of them orchids. Twenty-eight new species were added to the VNPS list. It was a long trip to the Bruce Peninsula, but the flowers, birds, and companionship made the tour worthwhile and memorable.

Richard & Sybille Stromberg, Piedmont

•Themes

(Continued from page 4)

and ridge-top development were presented. A lively question-and-answer period followed, producing a sobering, but productive dialogue addressing these topics. Honored at the meeting with Jefferson Cups were Nancy Arrington, Ben FitzGerald and Marie Minor for their many collective years of service to the VNPS. An exciting new registry site was also announced, the Jefferson Chapter's Buschman Site in Buckingham County.

As the meeting officially drew

to a close, I felt a renewed sense of commitment and dedication among those gathered to address environmental pressures facing all areas of the state. Having the opportunity to visit with and share the concerns of our Blue Ridge Chapter gave me food for thought and left me with lasting impressions of nature and new friends for that quiet drive east on Route 64. I would like to thank and congratulate Cindy Sandberg and all of the members of the Blue Ridge Chapter for an excellent Annual Meeting.

Michael Andrew Sawyer
John Clayton Chapter

Guide for growing and propagating wildflowers a delight to read

Anyone interested in either growing and/or propagating our native wildflowers should take a look at a new book just published in March by Houghton Mifflin Co.

It is *The New England Wild Flower Society Guide to Growing and Propagating Wildflowers of the United States and Canada*, by William Cullina. Cullina is the chief propagator for the New England Wild Flower Society.

The book is divided into four principal sections: an introduction of some 30 pages, the wild flower encyclopedia of 200 pages, a section on propagation of some 33 pages, and an appendix of 30 pages. I found the introduction especially interesting and informative in a way unusual for an introduction. Such subjects as "What is a Native Plant," "Latin Names," "Hardiness Range," "Light," and "Soil," plus others, are treated in considerable detail to help the reader understand, for example, the difference in the light requirements for a plant in Quebec and the same plant in Mississippi.

The wildflower encyclopedia provides information on each genus followed by detailed information on one or two species to half a dozen species in the genus. For each species the information is di-

vided into statements specific to hardiness zones and levels of light, soil moisture, texture and level of acidity, areas in which the plant is native, size in height and width, and closes with comments on the plant. One element included on every species that impressed me was the information on soil requirements including comments on the acidity level or specific pH preferred by a plant, something I have frequently sought in vain in other volumes.

Cullina is a successful grower of a number of difficult-to-grow plants and readily explains for us essential information for growing those plants. *Lewisiads* and *cypripediums* come to mind as examples.

The section on propagation is likewise especially informative with careful attention paid to the requirements for success in propagating those species included in the book, whether it be from seed or by vegetative reproduction. For those plants requiring tissue culture, Cullina says he prefers to purchase the young plants from growers specializing in that form of propagation and then grow them on before planting in the garden. The information in this section is not only up-to-date but the most informative I've ever seen in a single volume. This part of the book is a special delight.

The appendix provides the reader with a ready reference to information that would otherwise require considerable effort to accumulate in such a convenient form. It provides a list of wildflowers for different types of sites, sources for propagated plants and seeds, and a list of selected native plant societies in the U.S. and Canada.

Another aspect of the book that will please most readers is the photographs. They are sharp, show details and are a delight to view. While a number of photographs are his own, Cullina was in a position to draw from the enormous library of top quality slides at the New England Wild Flower Society. They enhance the level of excellence found in his book.

Finally, I found Cullina's writing refreshing, humorous at times, and possessing an easy, flowing style. This, coupled with the wealth of information included, makes the book most entertaining to read if you have any interest in wildflowers. While all readers will probably not agree with some of Cullina's philosophical views, I can't imagine anyone interested in either growing or propagating native plants failing to get more than his/her money's worth from this book. It lists for \$40.

Ted Scott, Shenandoah Chapter

Sharp eyes add new species to Virginia list of flora

On a field trip to Virginia Beach's False Cape State Park in March of this year, Nicky Staunton and other VNPS members located a diminutive flowering plant whose purplish stems were difficult to distinguish from the pine needle litter in which it grew. After examining field guides, Nicky tentatively identified this plant, with its barely discernible scale-like leaves and small four-petaled white flowers, as spring bartonia (*Bartonia verna*), a member of the gentian family. Thanks to Nicky's excellent pho-

tographs, this identity has been confirmed, and an exciting new species has been added to the flora of Virginia.

Allegedly collected in the county of Southampton, Virginia in 1814 by Frederick Pursh, spring bartonia was searched for intensively in southeastern Virginia during the 1930s and 1940s by M.L. Fernald (best known as the author of the most recent edition of *Gray's Manual of Botany*) without success. In a 1946 edition of the journal *Rhodora* (vol. 48, p. 327), Fernald concluded that Pursh's iden-

tification of the specimen, which had been lost by that time, was incorrect. Prior to the March find, spring bartonia was known in eight coastal states from Texas to North Carolina. In North Carolina, the species was known only as far north as Carteret County, well over 100 miles south of the Virginia border. Thus, the Virginia Beach sighting represents a sizeable range extension for spring bartonia and indicates that there still remains much to be learned about the phytogeography of Virginia.

Allen Belden, VDCR/Natural Heritage

Good gardening should control 'invasive' natives

In the May VNPS *Bulletin*, an article discussed "invasive native plants" and warned that these plants should be just as discouraged from use in gardens and landscape projects as invasive alien plants are. In my opinion, concerns about native plants taking over the environment may border on the hysterical.

In truth, the only reason that these plants are "invasive" plants is because there is lack of management. Just as surely as a mossy yard tells a knowledgeable person that the owner is not applying lime, a so-called invasive-plant problem tells a knowledgeable person that the owner is not doing his or her gardening!

There are very few plants that reproduce as rapidly as folks believe invasives do. This faulty perception is the result of people's lack of awareness. It only *seems* as if a field becomes a forest of autumn olive (*Elaeagnus umbellata*) or a yard a mass of common dandelion (*Taraxacum officinale*) overnight. The truth is that these plants come up here and there and no one pays any heed to them until there are so many that they can not be missed by even the unobservant. In a yard or field that is properly managed (i.e. "weeded" as desired), these plants do not get out of hand. If they do, it is because someone

has not kept on top of things.

Getting rid of a trumpet creeper vine because of its "invasive" nature, as was suggested in the article, is like throwing the baby out with the bath water. Instead of getting rid of this plant that is a wonderful native wild-life plant, simply tend the garden! The few trumpet creeper seedlings that come up each year should be pulled out. Gardeners know that this effort comes with the territory.

Of course trumpet creeper "doesn't want to stay put." The whole point of a plant producing flowers is to reproduce itself, which means it will spread. If you want to grow truly native plants (rather than sterile cultivars that are useless for wildlife and therefore environmentally bad), you should *expect* a plant to spread! And because any plant that grows where it is not wanted is a weed, even planted flowers can soon become weeds. Unfortunately, as soon as folks have to expend energy on something, such as weeding out plants, they decide there is a problem even though *none exists as far as the natural world is concerned*.

Just because a plant is a native "invasive" doesn't mean it's necessarily "harmful." A plant doing what comes naturally should not be considered harmful just because it means work for

the gardener. Instead, the gardener should think of having to weed, which causes physical exertion on the part of the gardener, as being a good thing because it helps to keep him or her healthy.

Lastly, thank goodness there are plants that do thrive in the disturbed areas that man creates. Otherwise our roadsides would be nothing but dirt. However, if you look closely along roadsides, you might be surprised by how often there really are diverse plant communities. Are they "stable"? Of course not! Nothing is stable in nature. The whole idea of succession is instability!

Calling native plants "aggressive" and worrying about their seeds being "spread by birds or wash[ing] downstream to establish themselves in a suitable disturbed habitat" is human folly. People need to accept the reality of nature and to learn to live in agreement with it. Far too often, humans instead want to somehow be master over nature and to make it work the way that is easiest or most desirable for them. Thus people misuse pesticides trying to have "specimen" plants, and they kill needlessly those animals that they fear (such as snakes). This "mastery of nature" mentality has helped create many of the world's environmental problems.

Marlene Condon, VNPS member & nature writer

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The deadline for the next issue is Oct. 1

Chapters asked for help in locating plant colonies

There is an urgent request that the membership of all VNPS chapters be canvassed for information on the location(s) of a colony of 10 or more plants of the species listed below. This is an effort to build a stock of Virginia seed to be used in planting roadside wildflowers - a great opportunity for VNPS to make a significant contribution to the effort. The NRCS Plant Materials Committee is trying to add seed from different sources to get 'Virginia source' plants without developing cultivars. The intent is to be able to offer Virginia-source forbs without limiting the plant materials to seed harvested from one spot. The Cape May Plant Material Center will compile and clean the seed, but it will be dispersed out to places like Ernst Seed Co. for growing out to harvestable stands.

The species being sought are: *Liatris* (any species); *Asclepius tuberosa* (butterfly weed); *Baptisia tinctoria* (yellow false indigo); *Monarda fistulosa* (bergamot); *Cassia marylandica* (wild senna); *Heliopsis helianthoides* (false sunflower); *Rudbeckia triloba* (coneflower or brown-eyed Susan) not purple coneflower, because Natural Heritage is discouraging wide use of it due to its easy hybridizing with the rare native.

Please send your reports to Ted Scott (Shenandoah Chapter) at 100 Sunnyside Drive Unit 32, Harrisonburg, VA 22801, 540-568-8679, vnpscott@aol.com. He will consolidate the findings and submit them.

• Board meeting

(Continued from page 2)

Chapter reported that its members presented three scholarships to local botany and horticulture students, co-sponsored the 31st Annual Spring Wildflower Pilgrimage, have had many field trips and had their 16th annual spring plant sale.

--John Clayton Chapter, Lorna Wass reported that Leah McDonald gave a program on Coastal Plain plants. Had 111 sales this year.

--Potomack Chapter President Marianne Mooney reported a new membership chair, Linda Haller. The

members had three great wildflower walks this spring as well as their annual plant sale in May, where they sold over 1,000 plants. In April the chapter donated \$2,000 to Green Spring to sponsor an intern for the Native Plant Trail. The chapter has committed funds to a film being made about a local stream valley - Four Mile Run. They will have a seat on the editorial board and offer advice about inclusion of the native and non-native flora of the stream.

--Prince William representative Gina Yurkonis reported that this year's

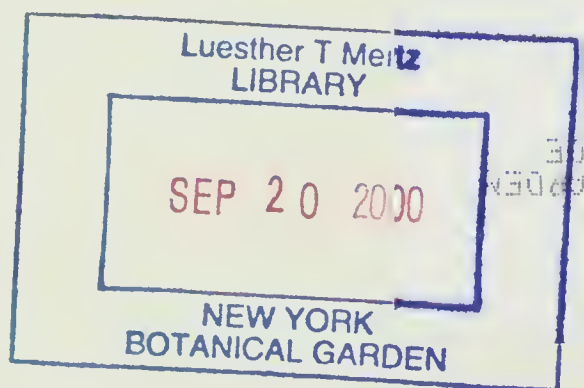
plant sale was a huge success. The chapter has adopted a bed in the Ben Lomond Antique Rose Garden in Manassas where the chapter will add companion native plants.

--Shenandoah Chapter representative Jenifer Bradford reported that for the first time in many years the chapter had a plant sale in Waynesboro which was held over Memorial Day weekend. Carol Gardner is working with students from Bridgewater Elementary school planting flowers in the town park.

Conservation community suffers tremendous loss

It is with great sadness that we advise our members of the death on May 21 of John Sawhill, President of The Nature Conservancy. Sawhill collapsed on May 5 following a dinner in Richmond celebrating the 40th anniversary of the founding of the Virginia Chapter of The Conservancy. He later went into a coma from which he failed to recover. Sawhill was an exemplary leader in the conservation movement as exhibited by the phenomenal success of The Nature Conservancy under his leadership. There could be no better role model for those of us in the conservation movement than this extraordinary individual.

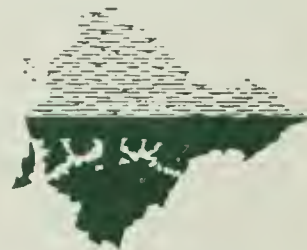
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Bulletin

A publication of the VIRGINIA NATIVE PLANT SOCIETY

Conserving wild flowers and wild places

WOY 2001

Delicate member of heather family to be spotlighted by VNPS

In 2001 the Virginia Native Plant Society's popular Wildflower of the Year Program, started in 1989, will enter its 13th year. Trailing arbutus or Mayflower (*Epigaea repens*) will be the featured wildflower. It was selected by the board in September from the two dozen candidate species nominated by Annual Workshop attendees in Richmond last

March. Previous selections, starting with 1989, were Virginia bluebells, spring-beauty, cardinal-flower, butterfly-weed, wild bergamot, mountain-laurel, New York ironweed, large-flowered trillium, fringe-tree, wild columbine, American twinleaf, and flame azalea. All 12 are in color and described on the VNPS website (www.vnps.org/year.html).

Trailing arbutus is an unpreten-

tious, leathery, little shrub of the heather family (Ericaceae). It is much beloved for its highly fragrant, waxy, pinkish-white flowers,

(See WOY 2001, page 10)

The Mayflowers

*Sad Mayflower! watched by
winter stars,*

*And nursed by winter gales,
With petals of the sleeted
spars,*

And leaves of frozen sails!

*But warmer suns ere long
shall bring*

*To life the frozen sod,
And through dead leaves of
hope shall spring*

Afresh the flowers of God!

John Greenleaf Whittier



Trailing arbutus, *Epigaea repens*
Illustration by Nicky Staunton

Confusion still abounds about loosestrife's sterility

There continues to be considerable confusion relative to several characteristics of naturalized purple loosestrife; namely, its taxonomic identity, methods of spreading, and the sterility of certain cultivars.

Discussing these points in the same order as above, researchers at the University of Minnesota, Neil O.

Anderson and Peter D. Ascher, point out that of the five species of Eurasian lythrum naturalized in North America, "*L. salicaria* and *L. virgatum*, ...have colonized disturbed wetland habitats, frequently forming monospecific stands (Cutright, 1978). These two species are considered by North American taxonomists

to be the same, because they differ for only a few minor diagnostic characteristics and intercross freely (Rendall, 1989; S. Graham, personal communication). In deference to this idea, we will refer to naturalized populations of *L. salicaria* and *L. virgatum* as purple loosestrife."

(See *Loosestrife*, page 9)

Presidential Hellos and Good-byes

Incoming president offers a plea for native plants

Hello Native Plant friends!

I have to tell you it is good to start another term of office as President of the Virginia Native Plant Society. It is another opportunity for me to be a voice for Virginia's impressively diverse native flora and the naturalized "new-comer" plants. We all have joined VNPS for reasons near to our hearts. For me, it is to see new (to me) plants in their habitats. To do this, I needed to meet people like Jake Kagey, Jay Shaner, Dora Lee and Sam Ellington - just a few of the many VNPS chapter members who knew their territories and have been generous enough to lead me to their special plant friends and introduce me to them. Our pleasure is sharing our neighboring plant friends and our gardens and landscapes that include them. Some of us will grit our teeth and spend much time at public meetings speaking to preserve the shrinking habitats where these natives live.

Recently, someone said that they joined VNPS because of the outstanding native plant seminar that the Piedmont Chapter organized several years ago. Many of our members join because they have met us through our native plant sales offered by chapters. Some others joined to share the trip to Canada's Bruce Peninsula. Others, because a friend invited them to a chapter program.

All of us understand what VNPS is about - learning about native plants, where they live, how to bring them into our lives at home, the threats to their survival in the wild. We must be the voices for our silent plant friends and our purpose is to conserve wild flowers in wild places. Mary Painter (Membership) and I agreed enthusiastically to return to serve VNPS with sharp goals and the expectation to renew your commitment to continue to increase your efforts for Virginia's flora. We are pleased that Mary Pockman has volunteered to serve with Ted Scott and Ruth Douglas to accomplish the work of the Invasive Alien Plant Working Group. We three previous presidents as well as your new members of the board, Bruce Jones (Publicity), Deanne Eversmeyer (Horticulture), John Magee (Corresponding Secretary), Shirley Gay (2nd Vice President), Ellie Leonard (Treasurer) - plus, the continuing members of your VNPS Board of Directors feel it is important to focus on identifying, educating about and protecting our native plants. Find time and a way to share your special skills in VNPS work this coming year. What you do will make a difference in preserving Virginia's native plants. They truly need you now, more than ever before.

Your President, Nicky Staunton



Outgoing president urges members to be active

Well, at last it is time to say good-bye! Being president has been a very interesting experience for me. I have learned about the VNPS Board and also my responsibilities - sometimes the hard way. Best of all, I have met a lot of wonderful people, members and nonmembers. As president I attended the Annual Meeting events and thoroughly enjoyed them. So, as a non-official member, I will continue to attend them because they are great fun. Like me, you will meet many fine persons and learn about the local native plants through the walks. Once more, I urge those of you who have never attended an Annual Meeting to do yourself a favor! Please, at least come to one. Believe me you will be hooked on it! There is one thing that I will miss: the gavel. I love banging that gavel because it has such a nice ring to it.

But it is now time for a change. Nicky Staunton is assuming the mantle of presidency. She has promised us a lot of interesting ideas and things. So, we will all wait to see what she is going to present to the VNPS. I hope that all of us will work with Nicky to help the VNPS grow and prosper.

Your outgoing president, Marie F. Minor

From Near and Far.....

Exhibit preserves wildflowers, history

RICHMOND – *With Paintbrush and Shovel: Preserving Virginia's Wildflowers* will be on display at Lewis Ginter Botanical Garden November 5 through December 3. The exhibit will be in the E. Claiborne Robins Visitors Center.

These watercolors are part of a larger collection that resulted from a conservation project from the late 1930s in Lee Park in Dinwiddie County (now Petersburg). The project was part of a Works Progress Administration (WPA) program to aid women head-of-households during the Great Depression. The women created a wildflower sanctuary, worked to control erosion and collected plants for an herbarium.

Local artist Bessie Niemeyer Marshall was commissioned by the Petersburg Garden Club with WPA funds to illustrate the collection. She painted 238 wildflowers, including rare species, such as the small whorled pogonia, and representatives from boggy habitats such as trumpets, pitcher plants and white-fringed orchids. The significance of this careful documentation cannot be overlooked, especially as natural habitats have disappeared dramatically in the last half of the 20th century.

Although Marshall didn't receive much recognition in her lifetime, her work is included in the book *With Paintbrush and Shovel: Preserving Virginia's Wildflowers* by Nancy Kober. Scheduled for release in November, the book recounts the WPA project in Lee Park.

Charter member recognized for community service

Claudia Thompson-Deahl was recognized by the Reston Citizens Association as its 2000 Community Service Award Winner. Claudia, a VNPS charter member, is the Environmental Resource Manager at the Reston Association. She was recognized for her work in protecting and enhancing the environment, protecting the natural ecology, and preserving open space.

November 2000

New website is valuable conservation database

The Association for Biodiversity Information (ABI)/Heritage website NatureServe is now publicly available at (www.natureserve.org). This site includes classification, distribution, and global, national, and state/province element rank information, to the extent determined and available, for the full vascular flora (native and non-native) of the United States and Canada (generally following Kartesz classification), as well as information on animals, natural communities, and selected lichens and bryophytes. A partnership among ABI, the Natural Heritage Network, and The Nature Conservancy, NatureServe makes data from U.S. Natural Heritage programs and Canadian conservation data centers easily accessible to the public for the first time - representing a quarter-century of field work, ecological inventory, and scientific database development by a network of hundreds of botanists, zoologists, ecologists, and data managers. Updates are planned three times a year.

NatureServe is an online encyclopedia that provides authoritative conservation information in a searchable database for plants, animals, and ecological communities of the United States and Canada. In its September 22 issue, *Science* magazine describes NatureServe as "a 25-year trove of field data on the plants and animals of the United States and Canada. The NatureServe database holds information on over 50,000 species, from the humpback whale to eastern hemlock, including endangered status, distribution, life history, and references."

NatureServe will be a valuable resource for conservationists, students and teachers, academic researchers, land managers and environmental planners, and anyone interested in learning about the plants and animals of the U.S. and Canada. It provides the most comprehensive, in-depth information on rare and endangered species currently available, and includes extensive information on common plants and animals too. It is the leading source for ecological communities and the first searchable Internet database for U.S. and Canadian ecological communities.

Magazine to feature nature column about backyard habitats

Marlene A. Condon, nature columnist for *The Daily Progress* in Charlottesville, is now writing a monthly article for *Virginia Wildlife* - the magazine published by the Virginia Department of Game and Inland Fisheries.

Virginia Wildlife, first published more than 60 years ago, has been dedicated to and supported by sportsmen. The public's increasing interest in nature, however, had led editor Lee Walker to include Condon's writing and photos in the magazine. "Back-

yard Wild" debuted in September and will provide information on improving backyard habitats for wildlife.

Condon, whose expertise on gardening for wildlife is based upon years of observation and experience, also writes regularly on this subject for a number of other magazines and newspapers including *Birds & Blooms*. Her work has been published in *American Butterflies*, *Living Bird*, *Birdwatcher's Digest*, *New Jersey Audubon* and *Birder's World*.

Subscriptions to *Virginia Wildlife* are \$10 per year or \$24 for three years. Send check payable to: Treasurer of Virginia, *Virginia Wildlife*, P.O. Box 7477, Red Oak, Iowa 51591-0477 or call 1-800-710-9369.



Pokeberry
Phytolacca americana

Wild Things! The benefits of wildflower gardening come to Little Street

Article by Uve Hodgins; reprinted with permission from Wildflower magazine.

During some point in your life, you're probably going to own a garden, or at least spend some time in somebody else's. If you're lucky enough to buy a home with a garden, chances are you'll inherit one with a green lawn and possibly a bush or two. Perhaps you might even get a line of daffodils in the spring. Or a tree. But, you have a choice here: you can either leave it as is, or get creative and design your own garden

I say – go wild! Dare to design your own garden using wildflowers and other native plants indigenous to your area. You'll find this will benefit not only your community, but it'll save you time, money, and yield an eye-stopper garden! It's not difficult. You don't have to be a landscape architect and draw techie blueprints. But you do have to have some basic idea of what you want.

But why a wildflower garden, you may ask. What's wrong with good old fashioned pansies and petunias? Tulips and baby roses? First of all, many of these are imported species. Imports are imports—they're not from here and need more care than natives. Many are annuals; they last only a season, so you're spending more money to keep replacing them year after year. Other non-natives can be invasive and crowd out all others.

Let's start with the big picture. As urban sprawl continues unabated, many natural landscapes are being permanently destroyed. Native plants, shrubs, and trees are being replaced by cookie cutter houses with cookie cutter gardens all crunched in together. You've seen it—lawn, bush, garage...lawn, bush, garage...lawn, bush, garage. Strip mall...strip mall. Developers have gone to the trouble of ripping out the natural habitat only to stick in a weak-looking sapling here and there. A homogenous look has spread across North America, ignoring regional differences.¹

Not only has beauty been traded

in for ugliness, but ecological food chains are also affected. Certain insects depend on certain native plants for their livelihood, and certain birds depend on certain insects...and so forth. If you take one of these away, there is a gap in the chain and those preyed upon



Dutchman's breeches
Dicentra cucullaria
Illustration by Nicky Staunton

have a population explosion, while the affected predator dies off. The native plants and animals have helped sustain each other for centuries. Beautiful and healthy is the neighborhood with wildflowers, singing birds, scampering squirrels, and fluttering butterflies.

So what does this mean for you? Perhaps I can illustrate by telling you what it has meant for me.

First, you should know that I'm not that different from most of you. I work. I go to school. I don't have the time to do all the things I would like to do. Like traveling and spending more time with friends. Nevertheless, I like living in style and keeping within my budget on Little Street, in Alexandria, Virginia.

This is what I have done. After being an apartment dweller for a decade, I bought my first home. What really attracted me to the place was the garden, or rather, the poten-

tial for one. The previous owners had eliminated almost all traces of one, claiming they did not have time to do any gardening.

I wanted more than just an ordinary garden—I wanted a knockout garden—unlike anyone else's.

Having read much on native gardening, I planned areas carefully. The sunny side of the house got native meadow flowers and the shadier side, and under my large silver maple, is where I planted native woodland species.

I know that novice gardeners are often intimidated by haunting stories of weeding and spraying. Of backs breaking and knees stiffening. Of strange chemical compounds in the aisles of Home Depot. But the good news is that gardening with native species requires little or no weeding or spraying! Because they are native, they are less susceptible to insect damage or disease in the environment. Just like people going on vacation—how many Americans get sick when they're vacationing in Mexico? Plants, like people, are more susceptible to disease when living outside their native environment.

(See Garden, page 8)



Yellow lady-slipper
Cypripedium calceolus
Illustration by Barbara Stewart

Melissa's Meadow sends a gardening message

On South Henry Street on the William and Mary Campus in Williamsburg is an area set aside near graduate student housing and the McCormack-Nagelsen athletic center known as Melissa's Meadow. There, a field separates the two facilities creating an open space largely covered by fescue lawn, which gently slopes to the east giving way to forest. To the west an old barn that predates both campus buildings lies at the opposite end of the forest, framing the space. Nestled on a little corner of this expanse, closest to the athletic center, is the Meadow.

Born of tragedy, it has become a living tribute to former William and Mary student, Melissa Long Etchburger who died suddenly in the spring of 1996. Melissa, the daughter of Cynthia Long, charter member of the John Clayton Chapter of the Virginia Native Plant Society, shared her mother's passion for native plants and the natural beauty of the Virginia countryside. Melissa was on the original committee that began planning and installing the native wildflower meadow on campus in 1994.

After her death it seemed a fitting tribute to name the meadow in her honor. Since 1994, the meadow has been an on-going project nurtured by dedicated members of the John Clayton Chapter and local Master Gardeners with, at times, help from student groups. The meadow was, in a sense, completed and dedicated more than a year ago but just recently on a day off from work I found myself on South Henry Street and decided to stop.

Pulling into the parking lot, I was delighted to find this little oasis of native beauty in what could just as easily have been a monoculture of fescue. A beautiful slab of sandstone, the

warm color of honey, had been erected and engraved simply with the words, "Melissa's Meadow." The relatively thin slab, perhaps one and a half inches thick, is set into the earth on end and stands perhaps four feet high. The edges were left irregu-



lar; it was not squared off, polished or "finished" but left in a natural state. One could imagine it having just been hewn from the bedrock, except for the elegant serif typeface, which spells out its message. The only other man-made structure to be found at the site is a small park bench. A native maple planted behind it, the bench rests, tucked into the tall plants, facing east across the meadow toward the treeline. From this vantage point, one sees across the meadow toward the field of fescue that gradually slopes down toward the forest. This borrowed view

is the natural continuation of the pastoral setting. Though as one stands, changes perspective and looks north or south, the aspect is equally pleasing as the irregular texture of grasses and wildflowers composing the meadow, contrast and lend interest to the views of the man-made campus structures in the distance.

Walking into and around the meadow, which measures less than 4,000 square feet, it is smaller than an average suburban front lawn in one of the nearby Williamsburg subdivisions, yet the meadow was full of color and life. Dozens of tiger swallowtails alighted on vivid clusters of orange *Aesclepias tuberosa* before drifting over to sample purple *Monarda* or crimson *Lobelia*. It is just this juxtaposition of plant material that makes meadows so fascinating. Each year the plants seed in and reappear in surprising combinations of colors and patterns. One never quite knows which plants will appear next to one another in any given year. One species will gradually decline in one spot, only to reappear with vigor a few yards away. Reds bloom next to orange, purples next to yellow, flowers of *Aquilegia* fade and turn brown as *Oenothera* and *Helianthus*

blaze forth. Future plans for the Meadow include the addition of a stone path. When complete, it will wind through the flowers and grasses to tie in with the solitary bench, providing an invitation to passers-by and opening views seen more often by the many goldfinches that frequent the site.

By contrast, consider how we, as garden designers, go to great lengths, to plan and lay out orderly combinations of plants and flowers looking for just that, refined, yet natural look, to adorn our, or our clients', pricey colonial revival home. More and more I am

(See *Naturalized*, page 10)

Conservation alert: Concern coming from all over the globe

11,046 species face imminent extinction. Scientists: Study only scratches surface of problem. (Associated Press - Mara D. Bellaby - 9/29/00)

This headline from London emanated from the World Conservation Union's 2000 Red List of Threatened Species. At least 18,000 species and subspecies around the globe were examined, only scratching the surface of Earth's estimated 14 million species - only 1.75 million have been documented. Humans are cited as the primary reason for this threat because of expanding cities, deforestation, agriculture and fishing. In the last 500

Ear" by Don Stap (a story of Ted Parker, a man with 4,000 bird songs in his memory); "Take Me, Lord, to an Unexplored Planet Teeming With New Life Forms," by E. O. Wilson and, especially, "Para Taxonomists" by Nana Naisbitt. Naisbitt discusses the global solution: local eyes - quick to see, at home, and in love with the land. There are beautiful photos, illustrations and some thought/action provoking articles for laypeople.

Recently, my attention turned to an inquiry about a quote in one of our

Based upon the total number of native vascular plant species, Virginia ranks **13th** in the nation.

Yet another publication was placed in my hands this past week, "Better Models for Development in Virginia" by Edward T. McMahon and published by The Conservation Fund. Shortly afterward, one more book caught my attention: "The Shape of the Future" by Ed Risse an author and land use educator, who also planned Reston, Virginia. "Land-Use Planning for Citizens" is being offered to Prince

The last word in ignorance is the man who says of an animal or plant: 'What good is it?' If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of eons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.

Aldo Leopold, *The Round River*

years, some 816 species have disappeared. Since last assessed in 1996, mammals identified as critically endangered - closest to extinction - increased from 169 to 180. Birds went from 168 to 182. Plants are difficult to assess because so many are yet to be analyzed. Conifers, the most-studied plant, suggest some 16 percent are at risk. Maritta Koch-Weser, Director-general of the World Conservation Union said, "Our world is a result of evolution over 3.5 billion years and we are able in just four years to do away with so much."

On a local newsstand, *Whole Earth* with its outstanding cover paintings by Isabella Kirkland, illustrates colorfully "Ascendant & Descendant Species." The fall issue of the *Whole Earth Catalog* features a call to inventory all the planet's living creatures. Less than five percent are known. Some of the articles to take note of are: "All Species Inventory" by Kevin Kelly; "Knowing Neighbors: introduction to the all species inventory issue" by Peter Warshall; "Finding Species by

publications concerning Virginia's ranking as 10th in the nation based on the number of globally rare plants. To verify the status, an e-mail was sent to Tom Smith, Director of DCR Natural Heritage Program. He said: "It's close. By last count Virginia ranked 14th in the nation based upon the number of globally rare plants. Based upon the recent publication by The Nature Conservancy here are some other numbers for Virginia:

EXTINCT: There are 100 presumed extinct (GX) species and 439 missing (GH) species in the United States. With 8 extinct (GX) and 8 missing (GH) species, Virginia ranks 10th behind Hawaii, Alabama, California, Tennessee, Kentucky, Georgia, Illinois, Texas and Florida.

Looking only at presumed extinct (GX) species Virginia ranks 8th in the U.S. behind Hawaii, Alabama, Kentucky, Tennessee, California, Ohio and Indiana. Six regions harboring exceptional concentrations of imperiled biodiversity were identified in the U.S. One of the six is the southern Appalachians, which includes southwest Virginia.

William citizens through the Piedmont Environmental Council and what is being taught is in "The Shape of the Future." These are some of the tools available to defend Virginia's natural areas whether private or public. There are other tools including conservation easements which are the purchase of or transfer of development rights to a landholding agency like Virginia Outdoors.

Here's a scary statistic: the U.S. tops the international list of endangered species. If action is not taken soon, more than 11,000 species of animals and plants worldwide may become extinct - including many animals on the U.S. Endangered Species list - reports the World Conservation Union. The United States tops the list with the highest number of threatened animals and plants - an astonishing total of 998. Part of the reason is habitat loss and commercial fishing is blamed for the addition of 200 species to the list since 1996 according to the Defenders of Wildlife.

Nicky Staunton
outgoing VNPS Conservation Chair

National Tree Seed Laboratory

Work begins with native grasses and wildflowers

The National Tree Seed Laboratory, operated by the USDA Forest Service, is venturing into the realm of testing seed of native grasses and wild flowers. With the increasing interest in native plants, there is demand for seed testing and processing.

The National Tree Seed Laboratory is uniquely qualified to address this niche market. The laboratory is the only facility of its kind in the U. S. Forest Service and it is located in Macon, Georgia at the Georgia Forestry Center. The staff members are recognized experts on forest seed testing, seed conditioning, and maximizing seed performance. There are five full time professionals and two technicians at the laboratory.

The staff has been working with other natural resource professionals on determining the germination protocols for seed of four endangered plant species. They are pondberry, *Lindera melissaefolium*; purple cone-flower, *Echinacea laevigata*; chaffseed, *Schwalbea americana*; and *Rhus michauxii*. The biggest obstacle to testing endangered plant species is collecting viable seed. Small isolated plant populations may produce low seed set due to limited pollen production. It is therefore important to check seed with an X-ray and then perform a quick chemical staining technique on a few seeds for viability before proceeding with a study plan.



Lindera melissaefolium, pondberry
Illustration by Nicky Staunton

In addition to testing seed, the staff has been determining how to clean native plant seed. In 1998, the

laboratory received 100 seedlots of native grasses and wild flowers for processing. The Westrup brush machine was used to dislodge the seed from its other parts. It is ideally suited for cleaning grasses, wild flowers, and hardwood seed. The debris was aspirated leaving clean seed. The seedlots are now being evaluated to determine the protocol for optimum germination.

The laboratory is equipped to test and process seed but not to propagate it for out planting. The building contains five walk-in germination rooms and four stand-alone germinators to test seed. The rooms can be set at various temperatures and daylight length. Seed can be tested at several temperature regimes to determine germination protocol. There are also separate walk-in refrigerator and cold storage rooms used for short and long term storage. Other equipment is available to measure moisture content, purity, seed per pound, tetrazolium and excised embryo viability. Specialized equipment such as the accelerated aging machine and liquid nitrogen tank can be used to supplement the standard testing procedure. In addition to seed testing, the laboratory has equipment to clean small seedlots.

As members of the Association of Official Seed Analysts (AOSA) and International Seed Testing Association (ISTA), the laboratory specialists develop the official seed testing criteria and procedures for native plants. All tests for domestic use are performed according to AOSA rules. The National Tree Seed Laboratory is the only laboratory in the United States approved to issue the ISTA seed analysis certificates required for international seed sales.

For more information concerning the laboratory, please visit the website at <http://willow.ncfes.umn.edu/seed-lab/ntsl-01.htm>. The main number is 912-751-3551 if you want to contact the laboratory directly. The address is National Tree Seed Laboratory, Route 1, Box 182B, Dry Branch, Georgia, 31020.

Jill Barbour, Germination Specialist

Thanks goes out to VNPS members

VNPS members! Your generosity in regard to the letter from your Board of Directors is applauded. Thank you, each of you, who sent a generous response to our 2000 Fund Raising request. Your gifts will keep VNPS moving forward in the coming years to preserve our native plants' habitats and therefore, the plants. We do not have a final tally of funds received, but it has already gone above our hopes.

Soon you will receive a questionnaire and announcement of the VNPS

Stakeholders meeting early in 2001. We hope that you will freely share your ideas with us by returning your response within a few days. Those are the ideas that we want to work toward as we plan our programs and goals for the next 10 to 20 years. We hope some will be a challenge for the long term. We hope, also, that you will put February 24-25, 2001 on your calendar and plan to be with us.

Thank you again for your gift to VNPS and the endorsement of VNPS work that is implied through the gifts.

Your VNPS Board of Directors

•Garden the easy way with wildflowers

(Continued from page 4)

Weeding is not my favorite pastime. And so, I decided to plant wildflowers because they're sturdy and, once established, let few weeds in their territory. Let me give you an example: if I were to plant a patch of tulips (non-native) and a patch of columbine (native), it's the tulip bed that will be sprouting the weeds that need pulling out.

Judging from the amount of work needed to take care of many gardens, I reasoned it might be easier easier to start a family! They are like newborns—they need constant attention: weeding, watering, fertilizing, and mowing. Wildflowers do not need commercial fertilizers. They're genetically programmed to survive in their natural habitat, so they have a high survival rate.

Natives also happen to be more resistant to drought than imports or cultivated varieties. I can spend a week in July with friends at Rehoboth beach and not worry about coming home to a dead garden.

My father is the editor of *Wildflower* magazine and he likes to give garden tours and slide lectures. I remember him startling his audience once by saying, "I hate gardening!" They found this hard to believe, especially since they were standing in his garden, which boasted over 80 wildflower species. He explained that that is one of the reasons he

wanted a wildflower garden—it is low maintenance and low cost—not to mention the aesthetic, intellectual, and spiritual rewards!

Once established, a wildflower garden comes back year after year. You plant it once and almost forget about it. When my husband and I discussed what to plant in our garden, he wondered if these wildflowers would aggravate his allergies. He wanted goldenrod, but wasn't sure it would be good for him. So I whipped out some of my reference books and learned that this stately and elegant native is not the allergy culprit. Rather, the nasty ones are ragweed, or non-native grasses such as timothy, orchard grass, and Bermuda grass.²

Often I've heard people call weeds and wildflowers the same thing. Wildflowers aren't necessarily weed and vice versa. A native wildflower can be defined as a "plant that existed in a particular region prior to European settlement."³ For example, dandelions are not native wildflowers, but they sure are weeds. Can you really call the graceful red columbine a weed? Or the elegant lady slipper orchid?

I'm not saying we should banish all non-native species—they have made their place in society. I just want to muster up enthusiasm for the cultivation of wildflowers. They're all too often overlooked in

North American gardens. We should celebrate our regional differences of flora. If we look closely enough, we can find pride in local residents: Virginians are proud of their native dogwoods; Arizonans of their distinctive flowering cacti; Oregonians of their giant lush ferns, and folks in Ontario love their trilliums!

The idea here is to have fun with this too. I get a kick out of some of the funky wildflower names. Ever heard of buffalo berry, New Jersey tea, jewelweed, or obedient plant? And how about names like bloodroot, butterwort, Indian pipe and devil's club? Instead of reaching for those tulip bulbs next spring, try Dutchmen's breeches. They actually resemble little white pantaloons hung out on the line to dry. Or try doll's eyes: the white berries look like they have been plucked from the sockets of a doll's head.

If you ever get a chance to have your own garden, get to know what is native in your area. Being from Canada, I did not know what was native to Virginia when I moved here. So I joined the Virginia Native Plant Society, where I got lots of help and less expensive plants.

Now in the summer I'll watch the neighbors weed, spray, fertilize and mow. But me: I'll have the barbeque fired up and the wine nicely chilled. All the money that would have been spent on fertilizers, weed killers, and annuals, I'll slush into buying one of those nice deck umbrellas I saw at Home Depot or, perhaps into another Adirondack chair.

Even though I have never been much of a green thumb, the neighbors think I am a botanical whiz. And, I get plenty of compliments on my Little Street garden from passersby. The truth is, I have let Mother Nature become my gardener. It is a great partnership—she does the work, and I enjoy the benefits. I hope that some time in your life, you are able to do the same.

¹ *Grow Wild*, Lorraine Johnson, Random House of Canada, 1998

² *Ibid.*

³ *Ibid.*

Diminishing numbers of wild herbs create alarm

Sharply increasing demand, combined with diminishing habitat and a lack of domestic cultivation, puts tremendous pressure on wild medicinal herb populations according to the National Center for the Preservation of Medicinal Herbs which advises the cultivation of such herbs that have been overharvested in the wild to the point that their existence is threatened. Cultivation may be the only way to ensure their future. Herbs valued for their roots—where the entire plant is harvested—are especially vulnerable and are a priority at the center. Research is being conducted on the organic propagation of certain

plants, while wild populations are being protected and nurtured:

Goldenseal, *Hydrastis canadensis*, commonly called yellowroot is on the CITES (Convention on International Trade in Endangered Species) list. Less than 25 percent of Goldenseal sold is cultivated. American ginseng, *Panax quinquefolius*, is also listed by CITES.

Black cohosh, *Cimicifuga racemosa*, is easy to grow from root, difficult to germinate from seed. Blue cohosh, *Caulophyllum thalictroides*, is a slow grower and difficult to germinate from seed. Wild indigo, *Baptisia tinctoria*, is the yellow flowering species of wild

(See *Herbs*, page 9)

Loosestrife has the ability to reproduce and spread

(Continued from page 1)

We continue to receive comments from members and nonmembers that they have grown purple loosestrife in their gardens for years and it has never spread. That may very well be the case, but there is evidence to the contrary. A recent example comes from one of our members who reported that several years ago she pulled up and burned all of the lythrum in her garden after hearing about the problems in the midwest. She had not had any trouble with it spreading around; until last year when she found quite a few seedlings. The conditions were evidently just right for seed germination.

Anderson and Ascher said in their research report: "Beekeepers and gardeners planted purple loosestrife, allowing it the opportunity to become established in settings at multiple sites throughout the continental interior (Hayes, 1979; *New York Times*, 1932; Pellett 1966; 1977; Rendall, 1989; Stuckey, 1980). From these sites, its seeds spread by means of air currents, flotation, fur of mink and muskrat..." It is important, therefore, for us to realize that the seeds of purple loosestrife are extremely numerous, very small, and can be spread by the wind as well as by animals, including birds.

Finally, we come to the matter of sterility of purple loosestrife. The idea that purple loosestrife is sterile has a long history dating back to the release of 'Morden Pink' in 1937. Once again we refer to the Anderson and Ascher paper. "According to the Agriculture Canada Morden Research Station (Morden, Manitoba, Canada), 'Morden Pink'...originated from a male-sterile mutant of *L. virgatum*. The varieties 'Morden Gleam' and 'Morden Rose' were developed by crossing 'Morden Pink' with select forms of the native *Lythrum alatum*...but tend to heavy seed production...."(Harp, 1957)

Ever since this statement, there has been considerable misunderstanding among nurseries and gardeners (Rendall, 1989). A simple misreading has led everyone to believe that 'Morden Pink' is sterile. This is clearly not the case. The report states that 'Morden Pink' originated from a male sterile mutant, not that it is male-sterile. It is, obviously, female-fertile, because it was used in crosses whose progeny included 'Morden Gleam' and 'Morden Rose.' Nonetheless, current nursery catalogs still advertise 'Morden Pink' as a 'sterile hybrid' that poses no threat to wetlands...."

Anderson and Ascher concluded

on the basis of their own research that, "This study showed that the cultivars are highly fertile when used as male or female parents with wild purple loosestrife, native species (*L. alatum* Pursh.), or other cultivars." An independent research study conducted in Canada also resulted in comparable conclusions.

Hence, in referring to wild naturalized purple loosestrife, we cannot refer to a single species name, *L. salicaria* or *L. virgatum*. Therefore, it would be nearer the fact to refer to it as *L. salicaria* and *L. virgatum* because of the cross-pollination of the two species during their long association together.

Ted Scott, Shenandoah Chapter

•Herbs

(Continued from page 8)

indigo, sun loving, reasonably easy to grow, but not cultivated for commercial use. Slippery elm, *Ulmus rubra*, has been used in cough syrups, lozenges and taken powdered for relief of sore throat and dry, hacking coughs for centuries. It is possible to harvest the inner bark without damaging the tree, but few wildcrafters take the time, and trees are killed for very little bark. Partridge berry, *Mitchella repens*, is a delicate woodland creeper found in most formulas for pregnancy.

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•WOY 2001

(Continued from page 1)

which seem to epitomize purity and virtue, and for its place in poetry and lore. I call it a "belly plant" because it trails on the forest floor and you must get down on your stomach to appreciate fully its beauty and fragrance. Legend has it that the Pilgrims called it "Mayflower" in fond memory of the English hawthorn it suggested and for which they named the ship that brought them to America.

Widespread but always rare and fragile, trailing arbutus occurs in nearly every county in Virginia and should be enjoyed only in nature, where it should be left alone. The creeping colonies are superficially rooted and easily destroyed. According to many authorities, including VNPS founder Mary Painter, it is almost impossible to cultivate and gardeners should not attempt to grow it.

Watch for our Woy brochure in early 2001. This will be the fourth Wildflower of the Year brochure prepared by me in my capacity as VNPS Botany Chair, and, again, I expect to follow closely the traditions in content and format established by my predecessors. The criteria for selection, also established by others before me, can be found at the VNPS website.

Stanwyn Shetler, VNPS Botany Chair

•Naturalized settling

(Continued from page 5)

finding such landscapes to look contrived, even as they attempt to mimic nature with irregular curving bed lines and mass plantings of shrubs and perennials. It is a style I have started to refer to as "High Suburban." Predictable in its irregularity, with just the one, specimen tree, usually a Japanese maple, to set things off, the more expensive and rare the cultivar the better. You can take nearly any residential street in the Commonwealth and without opening your eyes visualize the landscapes to be found there. Such is the nature of things in 21st century Virginia, yet where is the vitality? Where is the vitality that even this simple, unassuming, meadow produces in its tribute, where nature is allowed to have a free hand in 4,000 square feet?

What is it about us that we insist on exercising control over nature and turn with disdain on natural landscapes? How often have you heard comments that native plantings look "messy" or "unkempt"? It is precisely in this apparent abandon that I find the beauty, the simple grace of creation, a creation that works so well without fertilizers, chemical pesticides and the constant intervention of

the hand of man. It is a lack of appreciation of our local flora. It is a lack of appreciation of creation. Ironically, Europeans have recognized the beauty of our flora, taken it to Europe and are now selling it back to us with cultivar names like *Coreopsis lanceolata* 'Rotkehlchen', *Aster novae-angliae* 'Andenken an Alma Putschke' and *Panicum virgatum* 'Rehbraun.' Is there something about having made that ocean voyage that makes certain native plants more acceptable? What will it take to open our eyes to the sublime in Virginia, enabling us to look beyond the dogwood tree to the rest of Virginia flora?

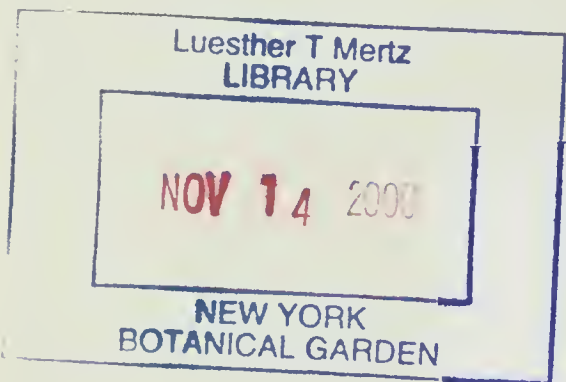
Melissa's Meadow is a place of reflection and quiet tribute to a past William and Mary student but it is also a garden of the present. Apart from the symbolism of its existence, it is a vibrant place resonating with life, and has literally become an outdoor classroom for students of botany, entomology and geology at the college. Hopefully such plantings will become the gardens of the future. Seeds from Melissa's Meadow are currently being collected and distributed to local elementary school children for planting, thus furthering the legacy and teaching appreciation of nature.

Article & illustration by Michael Andrew Sawyer
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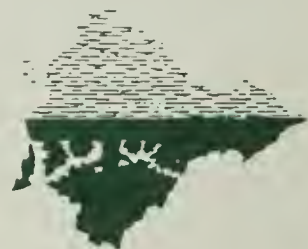


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